

JULY 1958 3/-

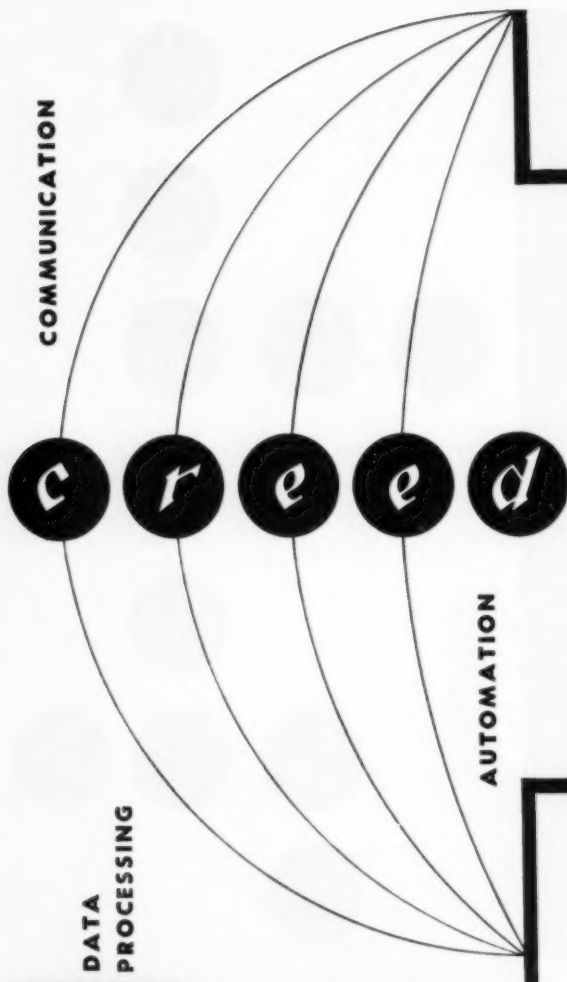
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BUSINESS

JOURNAL OF MANAGEMENT





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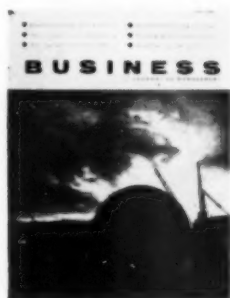
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COVER PICTURE

Not long ago Dounreay was a deserted airfield on the Caithness coast. Today Scotland's first atomic power station is rapidly taking shape there. This study is reproduced by courtesy of the U.K. Atomic Energy Authority

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ECONOMIC PROSPECT

Survey and Forecast of Business Conditions

Post-war credit release ?

► If you are entitled to post-war credits, do not save up too hard for Christmas. You may be able to spend your credits by then.

► These credits are a legacy from Lord Keynes' fertile mind. The money was 'blown' on the war. Idea was to pay back during a recession. There hasn't been a really serious one yet, but this autumn may be the time.

► When over £450 million of credits are released, and much of this money is 'blown' on new curtains and cars, the trade recession will blow away too.

► If half the money were spent in the three months following release, this would be equivalent to a 4½ per cent rise in national spending. Not enough to be inflationary when there is spare capacity, but enough to stop the recession from getting worse. The Government will not, however, act just yet.

Favourable overseas trade

► As predicted here, British exports are holding up well. When overseas holders of sterling can draw over £3,900 million from our 'bank', to spend here at will, we should not necessarily expect world recession to hit us too hard.

► There would be danger if sterling countries wanted to make big dollar purchases, from the central gold reserves, in the autumn. But this is unlikely, at the time of a Commonwealth Economic Conference.

► Pages 5 to 8 of this review show a number of economic indicators that British home trade is falling and unemployment rising. Also production of cement and steel is down, and there is a world surplus of aluminium and oil.

Commonwealth economic plans

► But Britain and the other Commonwealth countries are in a unique position to lead the world out of recession. Expect plans to be made at the Commonwealth Economic Conference opening in Montreal on September 15. Expect action in the late autumn.


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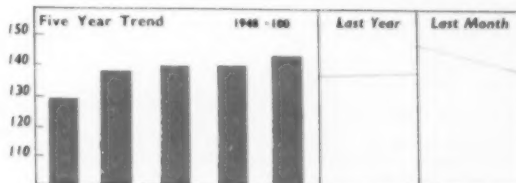
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STATE OF THE NATION

- Five key indicators to the State of the Nation, followed by 18 indicators to the main economic influences.

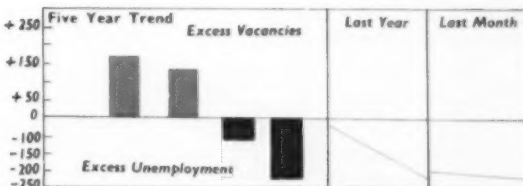
INDUSTRIAL PRODUCTION ▶

Output may decline temporarily in the autumn, after being stagnant for more than 12 months. April provisional index is 134.5, compared with 144 in March and 134 in April, 1957. Four years ago the level was 124.



EMPLOYMENT POSITION ▶

The present level of unemployment, around 2 per cent of the working population, may rise to nearer 3 per cent temporarily in the autumn. Excess number of unemployed over unfilled vacancies was 240,000 in May, compared with 226,000 in April and only 30,000 in May last year. Four years ago there were 42,000 more vacancies than unemployed.



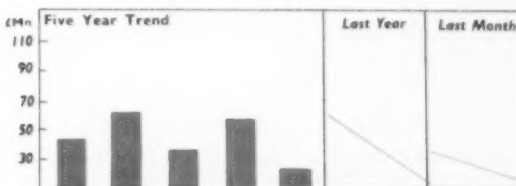
MONEY FLOW ▶

Business money flow, as indicated by cheque clearings, shows signs of levelling off, with the possibility of a modest decline. May daily average was £586 million against £630 million in April and £583 million in May last year. Four years ago the figure was £480 million.



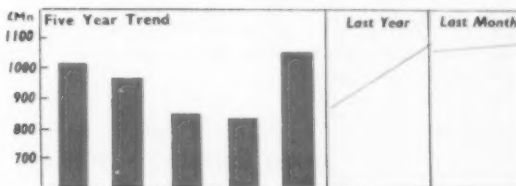
TRADE GAP ▶

Gap between imports and exports has narrowed further, due to a rise in exports. May excess of imports over exports was £6.6 million, compared with £33.6 million in April, £59.8 million in May last year and £42.4 million four years ago. Even allowing for the effects of the London dock strike, the trade position is favourable.



GOLD AND DOLLAR RESERVES ▶

The U.K. reserves continue to gain gold, and the U.S., for a change, is losing. This will help world trade. In the U.K., May total holdings were £1,079 million compared with £1,035 million in April, £838 million a year earlier and £1,066 million four years earlier.



● KEY TO THE CHARTS. Bar charts show the 'Five Year Trend,' taking for each year the average monthly value during the most recent three months. Graph lines for 'The Last Year' compare the most recent month with the same month a year ago. Graph lines for 'Last Month' compare the most recent month with the previous month.

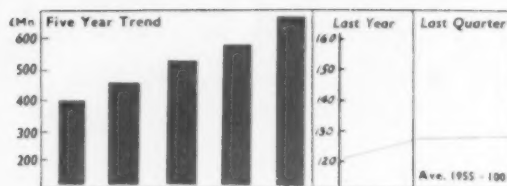
● READERS ENQUIRIES. Spot enquiries by letter or telephone, involving no research, are answered free. More detailed enquiries will be charged for at cost, on the basis of professional staff time absorbed. This applies to both general management and economic enquiries.

MAIN ECONOMIC INFLUENCES on the STATE OF THE NATION

1. Trends in CAPITAL SPENDING

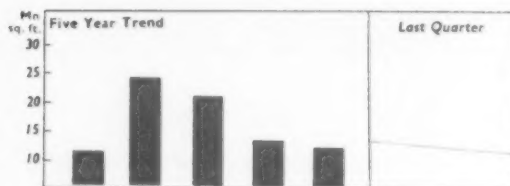
INDUSTRIAL INVESTMENT PLANS ▶

Total industrial investment in 1958 may be level with that of 1957, but 1959 is expected to show a moderate decrease. Fixed capital expenditure in manufacturing industry in the first quarter of 1958 was 1 per cent higher than a year earlier, but the value of building contracts was 2 per cent down.



FACTORY BUILDING APPROVALS ▶

Declining level of factory building approvals indicates a lower level of construction next year. In the first quarter of 1958 a total area of 12.1 million sq. ft. was approved, compared with 13.8 million in the last quarter of 1957, 13.7 million a year ago and 14.5 million four years ago. Peak for approvals was 29.7 million in the second quarter of 1955, heralding the 1956 boom.



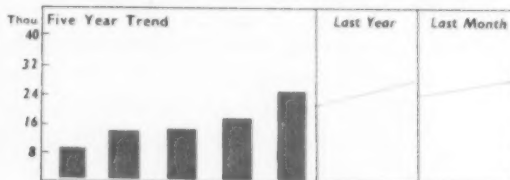
MACHINE TOOL ORDERS ▶

Machine tool orders continue to run well below the level a year ago, and orders in hand now represent only about nine months' work. The latest available figure is for February. This shows £70.4 million orders outstanding—£2.4 million less than a month earlier and £24.3 million less than a year earlier.



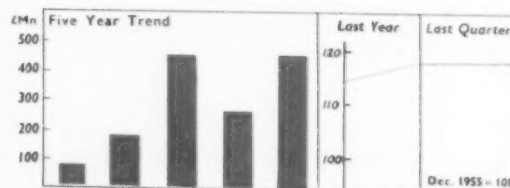
INDUSTRIAL HIRE PURCHASE ▶

Industrial hire purchase is fairly buoyant, and easier credit terms may keep it that way. The B. of T. index for April for industrial plant and equipment was 118, against 115 in March and 100 last July. May H.P. sales of new cars and commercial vehicles totalled 28,000, against 24,653 in April, 21,880 in May last year and 9,012 four years ago.



MATERIAL STOCKS ▶

Manufacturers' stocks increased by less than 1 per cent during the first quarter of 1958, when for seasonal reasons there might have been a larger increase. Stocks of industrial materials held outside manufacturing industry, by merchants and the Government, decreased by 11 per cent in the first quarter of 1958. But a fall of almost this magnitude might be expected for seasonal reasons.



HOME BUILDING STARTS ▶

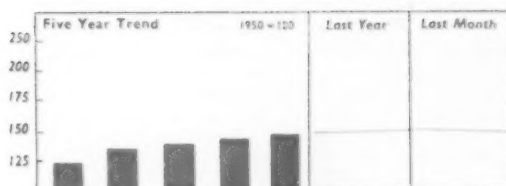
The decline in home building continues. Number of houses started in the first quarter of this year was 56,825, against 64,621 a year earlier and 76,943 four years earlier. The value of new housing work carried out in the first quarter was 11½ per cent down on a year earlier.



2. Trends in CONSUMER SPENDING

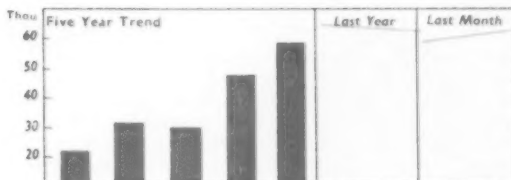
RETAIL SALES ▶

Retail sales are levelling off, and allowing for higher prices, it is doubtful whether the volume of goods shifted in the second half of the year will be quite as great as a year earlier. April index for all kinds of business was 149, against 150 in March, 147 a year ago and 126 four years ago.



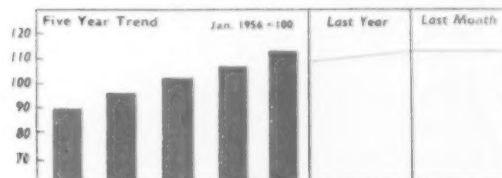
DOMESTIC HIRE PURCHASE ▶

Domestic hire purchase is slightly down, after some stimulus from the purchase tax cuts. B. of T. index for April was 93, against 96 in March and 100 in July last year. In May 64,542 used cars were sold on H.P. contract, compared with 58,450 in April, 66,008 in May last year and 27,268 four years ago.



WAGE RATES ▶

The index of wage rates may be expected to rise 2 or 3 per cent in the next few months, and then level off again, as usual in the autumn. Index for April was 112.7, compared with 112.6 in March, 108.0 a year ago and 90.4 four years ago.



PERSONAL EXPENDITURE ▶

Personal expenditure shows signs of levelling off. In the first quarter of 1958 the total spent on durable household goods was £239 million, or only £4 million more than a year earlier. Total expenditure on clothing and footwear was £297 million, or only £3 million more than a year earlier.



3. Trends in PUBLIC SPENDING

PAYMENTS FROM EXCHEQUER ▶

Expenditure in the financial year to date is slightly ahead of the same period a year ago. But budgeted expenditure for the current year is also slightly higher at £5,038 million, against the actual expenditure of £4,920 million in the last financial year.



EXCHEQUER DEFICIT ▶

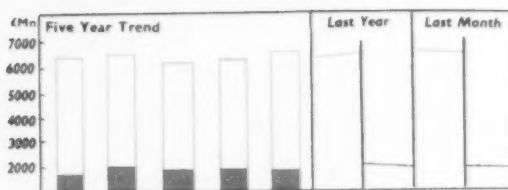
The deficit which is usual at this time of the financial year is slightly greater, so far, than at the same time a year ago. Bar chart shows the Exchequer surpluses on current account during each of the last five calendar years.



4. Trends in CREDIT POLICY

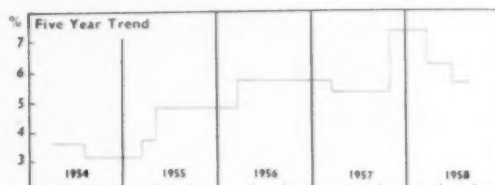
BANK DEPOSITS AND ADVANCES ▶

Bank deposits have recently been slightly down, but advances at a steady level. May deposits were £6,411 million, compared with £6,450 million in April and £6,285 million a year ago. Advances in May totalled £1,962 million compared with £1,964 million in April but £1,998 million a year ago.



BANK RATE ▶

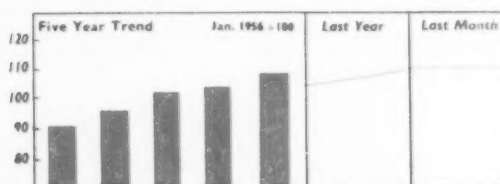
Bank rate may come down to 3 or 4 per cent early next year, and there may be a further interim drop, but the Government will be cautious during the autumn crisis season. Latest fall, not shown on the chart, was from 5½ per cent to 5 per cent on June 19.



5. Trends in MARKET PRICES

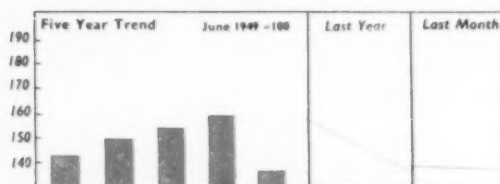
RETAIL PRICES ▶

Retail prices should remain fairly steady throughout the summer. The index was 109.2 in May, a fall of 0.4 on April but a rise of 4.6 on a year earlier and a rise of 17.0 on four years ago.



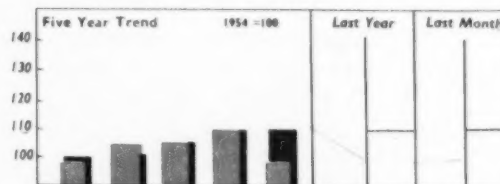
RAW MATERIAL PRICES ▶

A halt in the fall of raw material prices is likely very soon. New American buying of non-ferrous metals for stockpiling will have an effect. May index was 136.2, or 1.0 below April and 23.6 below a year earlier, but only 8.9 below four years earlier.



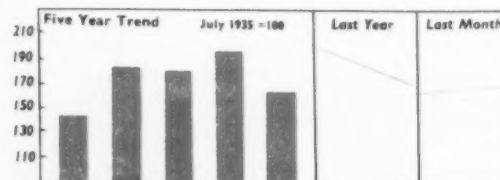
TERMS OF TRADE ▶

Relative stability may be expected in the terms of trade during the next few months. The April rise of 1 point in the import index was due to seasonally higher prices for foodstuffs, and this trend should be reversed. April export price index was 110, the same as March. Import prices fell 12 points during the last year to the April level of 99 while export prices were steady.



SHARE PRICES ▶

Share prices are likely to continue in a state of uncertainty until the late autumn at the earliest. At the time of going to press, the *Financial Times* index of industrial ordinary shares is around 178, or 10 points above the average for May, but 25 points below the average for June last year and 26 points above the level four years ago.





There are some things it doesn't do to forget...

What has he forgotten? His hat? His umbrella? His briefcase? No! There is just one thing, though. He has let another day slip past without taking any action about that pension scheme for his employees.

Like all directors of private limited companies, he has other problems on his mind. A pension scheme? Yes, he must certainly think about that—tomorrow. Meanwhile, he is inviting the state to step in and run a part of his business for him—by compelling him to include his employees in a state-controlled superannuation scheme. *He may not have long to wait before that invitation is accepted!*

If you know someone like this, do him a favour. Jog his memory. Remind him to write to Noble Lowndes, the consultants who specialize in pension schemes for smaller firms as well as for those whose names are household words. Tell him to write *today*.



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THE LITTLEWOODS ORGANIZATION

Mr. John Moores on a Record Year

Turnover up 10%

I am glad to say that the benefits I anticipated would result from the reorganizations we carried out in 1956 were fully realized in the past year, and the whole Littlewoods Organization had a very successful year indeed. Once again our gross turn-over irrespective of Pools increased, reaching a record total of £53,000,000 an increase of £5,000,000 or rather more than 10 per cent.

This advance was not due to any sudden capture or development of new markets, but through streamlining our business and paying meticulous attention to the needs of our customers. By offering higher quality merchandise at more attractive prices than ever before, we were able to make a host of new friends.

Ultimately, the Littlewoods Organization is just as dependent as any other company on the prosperity of the people it serves, but I believe that we are a good deal less sensitive to the type of slight recession that the country is now experiencing than those stores marketing similar but higher priced merchandise. At these times the public economizes, either by refusing to buy or by making their purchases at lower prices at places where they can be sure of getting

the best possible value for money. We now have repeated evidence that we have established in the minds of the public our ability to provide high quality merchandise at very attractive prices indeed. I think the result of this is that we are holding all our old customers, and at the same time attracting new customers who used to buy in a higher-priced bracket. These people come to us with complete confidence, and it is our concern to see that their confidence is amply justified.

LITTLEWOODS POOLS LTD.

The past year has been a very exciting one for all concerned with Littlewoods Pools because, in September 1957, we made a very important decision to remove the limit of £75,000 as the top dividend on the Treble Chance Pool. As a result of this decision, there have been three wins of over £200,000—in November last Mrs. Nellie McGrail, a young widow with two small children, of Stockport, received £205,235; in February 1958 Mr. John Brockwell, a foreman cellarman of Epsom, Surrey, together with his wife won the sum of £206,028; and then, on

March 29th, Mrs. Elizabeth Riley, with her husband, Mr. Thomas Riley, of Horden, Co. Durham, won £209,079.

I have always considered it part of our duty to the investors in Littlewoods Pools to offer them every possible service to assist them when they come into the possession of sudden wealth, and here I can record a very inspired example of Banker Customer relations when my Executives, together with those of Martins Bank—our Bankers—founded Advisory Committees to take over the financial worries from Mrs. McGrail, Mr. and Mrs. Brockwell and Mr. and Mrs. Riley. The membership of these Committees comprises a Senior Bank Executive, the head of the Bank's Trustee Department, a leading Stockbroker, a Lawyer and an Income Tax Consultant, with my brother—Mr. Cecil Moores, who is the Managing Director of the Pools operation of our Organization—available for consultation. To date, the Chairmen of these Committees report complete success with their charges. In each case, large settlements have been made on the children, gifts made to various relatives, friends and charities, advice given and taken on suitable shares in which to invest, wills made out, insurance policies taken out, house purchases arranged. In fact, wise counsel has been given on every subject and has proved of great assistance to these winners.

I intend to continue with the study of other possible ways in which we can help or advise the investors in Littlewoods—the world's largest football pool.

LITTLEWOODS MAIL ORDER STORES

1957 has been a fine year for Mail Order. Never before have we had so many active Organizers on our lists as we have today. We also note another significant fact—more middle-class folk are becoming Club members, and the day seems to be passing when instalment buying through Clubs was popular mainly among those with only restricted means. It

really looks as though a much wider public is now aware of the benefits and convenience of home-shopping through our attractive, reliable catalogues.

These changes have, in my opinion, been stimulated by us in two important ways.

First, we have improved the merchandise we are offering by taking more care than ever before to find out what exactly customers buying through a catalogue want. Having found this out we have improved the all-round quality of our buying staff which I regard as the most important group of people in the whole Organization. A first-rate buying team is the best guarantee of success in a business like ours, and I would like to thank all our Buyers for what they have done and for what I know they will do in the future.

Secondly, as you will remember, last year I told you about the financial scheme we had evolved to help Club Organizers to serve the needs of their members more quickly, and I am pleased to report that this scheme has continued to be an unqualified success. It has materially increased our turnover and has made the pastime of being a Littlewoods Club Organizer much more interesting and remunerative. I have the utmost confidence in the Club Organizers — those enthusiastic people who collect orders and cash and forward them to us. After all, we have been in business together for a long time. I thank them for all they have done, and look forward to many more years of mutually profitable co-operation.

So far as the future of Mail Order is concerned, I feel very confident that unless the present economic position deteriorates considerably—which I do not expect—our future will be very bright. However, I am conscious that we shall never reach a stage where we have done enough to improve our goods and services, to the point where we can become complacent.

DESIGN

Our latest drive and one in which I am taking a personal interest is to establish better

standards of design in all our categories of merchandise. I do not believe that inexpensive articles need to be poorly designed, still less do I believe that the public do not care what the things they buy look like, so long as they serve their purposes. I have encouraged my Buyers to seek the help of the Council of Industrial Design so that eventually we can eliminate any merchandise which does not reach the standard of good design. As a result, many of the items in our forthcoming Catalogues will be marked as having been accepted by the Council of Industrial Design. We are grateful to the Council for the help they have given us, and we believe that our customers will appreciate these improvements as time goes on.

I owe a debt of thanks, too, to our manufacturers who have loyally supported us during the past year. It is a great satisfaction to me to feel that I can rely upon them at all times.

CHAIN STORES

Once again I am happy to report that 1957 was an excellent year's trading—our best yet. Much of what I have said about improvements in buying has been reflected in our Chain Store merchandise and this has stimulated sales to a very satisfactory degree. I welcome the Chancellor of the Exchequer's revision of purchase tax on certain items, and at a considerable cost to ourselves we immediately passed these benefits on to the public. But I look forward to the day when purchase tax is abolished or brought to an absolute minimum, because it is not right that retailers, who have to pay the tax on goods when they put them into stock, should always be at risk when there is a change in the rate of purchase tax. For the plain fact is that under our present system reduction of purchase tax may mean serious losses to the trader. Quite apart from passing on reductions in purchase tax, our entire policy is devoted towards cutting the cost of living. All of the economies that have been effected through the measures I have referred to earlier in this

report have been utilized to bring prices down. We have recently made extensive cuts in the prices of a wide range of women's and children's wear.

In addition, we are endeavouring at all times to allow the shopping public to enjoy the benefits of reductions in prices of raw materials.

And our "Satisfaction or Money Back" Guarantee is evidence in itself that our price reductions are not made at the expense of quality.

In my last report I had rather a dismal tale to tell of Chain Store development, so hampered by the credit squeeze. Well, things are not much better now, but in one respect we have been able to take an important step forward which removes a nagging worry and a sense of, almost, frustration.

Last year I spoke of our valuable site in Glasgow as being "just a hole in the ground." At that time it looked like remaining so. Today I am able to tell you that we have found the money from our own resources to push ahead with a Store worthy of the great city we strive to serve. The new Littlewoods Store is even now under construction. It will not be the near-skyscraper we had originally planned, but it will be a three-storeyed building, and a handsome addition to Glasgow as well as offering a valuable service to its citizens.

STAFF

Finally, I must pay my tribute to the 20,000 or more men and women who have helped to make the Littlewoods Organization what it is. It is in many ways stimulating to be involved in a concern which is so constantly expanding. It can also be rather unsettling. The Organization has to make plans and take decisions, almost overnight. Traditional policies are swept away and new and better ones take their place. Functions have to be re-allocated, and all the time there is a ferment of discussion, replanning and thinking out the next move. It's tough work for all of us sometimes. I thank everyone for bearing his or her part so enthusiastically and, if I may so, so successfully.

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HOME MARKET SURVEY

A Round Britain Survey: Regional Notes on Markets and Industrial Developments

WALES

EMPLOYMENT in Welsh manufacturing industries has recently shown a slight decrease, the heaviest fall being in food processing, followed by electrical goods and engineering. But although more hand tinplate mills have closed, the loss of employment in West South Wales is partially offset by increased labour forces in the modern works at Ebbw Vale, Port Talbot and Shotton.

Impending redundancy has been notified in machine tool production at Maestag and Taffs Well, in engineering and furniture at Cardiff, as well as in the Royal Ordnance factory at Cardiff, which is to close at the end of the year.

Manpower in the National Coal Board's pits has continued to decline, following restrictions on recruiting. In South Wales the total employed in all coal mines is now less than 100,000, or about 1,700 less than a year ago.

The general level of unemployment in the building and civil engineering industries of Wales has been higher this year than in any year since 1950.

Rate of unemployment in Wales, at 4 per cent, is double the national rate.



This is not a very bright picture. But at a luncheon in Cardiff last month the Hon. Richard Wood, parliamentary secretary to the Ministry of Labour and National Service, called upon the people of Wales to "blow their own trumpet" and make known the excellent facilities they have to offer to industrialists looking for space in which to expand.

Not slow in taking up this point has been Colwyn Bay in North Wales. The Colwyn Bay Council are developing an industrial estate of 22 acres, and planning consent has already been given for roads, sewers etc. The neighbouring area has a total population of 50,000 and there is a pool of labour immediately available. Housing can be provided for key workers who may have to be brought in. The Cambrian Development Co. will build factories, to be let on long full repairing leases at a rent of from 4s. 3d. to 5s. per sq. ft. The Colwyn Bay estate is situated on level ground on the main A55 road from Holyhead to Chester, Liverpool and Manchester. All main services are provided and

there are all-the-year-round express trains to London, Liverpool and Manchester.

Other recent developments in Wales have been:

Stainless Steel. Richard Thomas and Baldwins plan to erect at their Panteg works, Monmouthshire, a new coiling mill and ancillary and finishing equipment to produce stainless steel sheets of a lighter gauge and improved quality than hitherto. Cost will be about £1.5 million and the project should be completed within 10 to 12 months. Production costs will be cut by the new plant.

Steel Sheet. Pressed Steel Co. of Cowley, Oxford, propose to erect a factory and works at Swansea, employing 2,000.

Cold-rolled Steel. Newport division of the Steel Company of Wales have ordered from Birlec, an A.E.I. subsidiary, £½ million worth of electric furnaces for producing special grades of cold-rolled steel for the electrical industry. Seventeen of these furnaces have already been installed by the Steel Company of Wales.

Steel Fabrication. Richard Thomas and Baldwins expect to complete within the next nine months a new press and fabricating works at Gorseinon, near Swansea, in the premises that were occupied by one of the Steel Company of Wales tin-plate mills. The new plant will produce to order a variety of small pressings from sheet steel, some of them for the motor industry. Tools and dies will be made for outside customers as well as for the company's own works.

Chemicals. F. W. Berk and Co. are planning to extend their chemical works at Morriston, Swansea.

Instruments. A new factory of 80,000 sq. ft. is to be erected for Firth Cleveland Instruments at Treforest, Glamorgan, near to the parent company's (Simmonds Aeroaccessories) plant. When completed it will take over some of the Simmonds production and also produce new products in the general instrumentation field for aircraft, marine, nuclear and industrial uses.

Aluminium. During the next four years £10 million is to be spent by Northern Aluminium Co., mainly at Rogerstone, near Newport, Monmouthshire. This would raise annual capacity from 50,000 tons to 75,000 tons, but it would be done in such a way that ultimately output could expand to 175,000 tons at a relatively low

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ECONOMIC PROSPECT

cost per ton. The Rogerstone works already employ 3,000 and a modern office block has recently been added.

Processed Foods. Kraft Foods of Morris House, Berkeley Square, London, W.1, are to build a 3,000 sq. ft. factory on the Penarth Road industrial estate, Cardiff. This is part of a project ultimately involving the development of 20,000 sq. ft.

Swansea Docks. The 650-ft. west wharf in Prince of Wales Dock is to be reconstructed, after being out of use for some time. Railway lines and crane tracks are to be renewed and the surface concreted. Four electric cranes will be transferred from King's Dock where they will be replaced by four new electric cranes equipped for the discharge of bulk, dry cargoes by grab.

Swansea Docks. The workshops at Palmers Yard for the Prince of Wales Dry Dock Co. are to be extended.

Iron Ore Terminal. Planning permission has been granted to the Angle Ore and Transport Co. for the establishment of an iron ore stocking ground near Chapel Bay on the Angle Peninsula, Pembrokeshire. It is envisaged that up to 3 million tons of ore will be off-loaded from ships of up to 100,000 tons, to be shipped later in smaller vessels to South Wales steel ports.

Milford Haven Tanker Terminal. The jetty at Popton Point being constructed for British Petroleum by Christiani and Nielsen will be completed early in 1960 at a cost of £1.8 million. Esso Petroleum have decided to go ahead with their £20 million scheme for a refinery and oil tanker terminal at Milford Haven.

N. Wales Oil Terminal. Tide Water Oil (England), a wholly owned subsidiary of Tidewater of the U.S., have prepared a plan to develop 82 acres of farmland near Holyhead, Anglesey, for building a bulk oil terminal, in conjunction with Shell Petroleum. The scheme has received planning permission.

American Purchaser. Mr. Daniel K. Ludwig, the American shipowner, has exercised his option to purchase 60 acres of farming land at Milford Haven. It has been suggested that he may be planning a terminal for handling iron ore, chemicals or oil.

Engineering College Expansion. The steel industry of South Wales has covenanted to provide over £300,000 of the £1 million needed for modernizing the Engineering Department of the South Wales and Monmouthshire University College.

Here are some examples of success that has come to firms moving to Wales:

A. B. Metal Products Ltd. moved from Middlesex to Abercynon in the Aberdare Valley in 1950, when their

BUSINESS

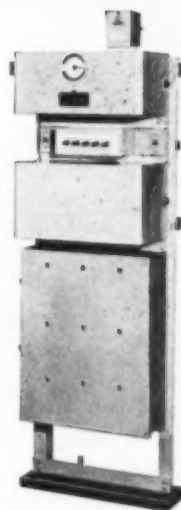
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factory at Feltham had to be vacated owing to extensions to the London Airport. This proved a happy move for the company, and, in seven years their original labour force of some 80 people has grown to 1,500. The floor area of their factory has increased from 35,000 sq. ft. to well over 100,000 sq. ft.

When visiting the United States soon after the war, Mr. Basil Glass, managing director of Everwear Candlewick Ltd., was greatly attracted by its flourishing candlewick industry. He was convinced that there would be opportunity in Britain for both export and home trade.

In July 1947, Everwear Candlewick Ltd. was formed and production of this novel fabric was started in Brynmawr, Breconshire, where Mr. Glass and his brother Julius were already established as dress manufacturers. The site, over 1,000 feet above sea level, was technically ideal for this new venture, since the beauty of candlewick is its soft downy finish, and the natural elements of Brynmawr combine to produce a result that mere technology can never achieve.

Today this cotton-tufted chenille is firmly established. Factories have been opened in Blaenavon, Dowlais and Hirwaun, as well as at Brynmawr, employing some 600 operatives and staff.



For the past 11 years Teddington Aircraft Controls Limited have conducted their business from Cefn Coed—a small village in Breconshire, near Merthyr Tydfil. The company, a subsidiary of British Thermostat Company Limited, are concerned with design and manufacture of aircraft instruments and accessories.

An original labour force of 250 has grown to 1,530, and the factory space increased by 85 per cent. In 1955 a further factory of 23,000 sq. ft. at Ammanford, Carmarthenshire, was taken over for the production of flexible metallic bellows, manufactured in this country by agreement with Solar Aircraft Company of America. Now the Ammanford factory is receiving orders for bellows for general industry, oil refineries, aircraft, and applications for atomic energy work.

END

HOW FAR AHEAD DOES YOUR FIRM PLAN ?

See the article on Page 52

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EXPORT MARKET SURVEY

A Round-the-World Survey: Country by Country

DOMINICAN REPUBLIC

THE Dominican Republic, although small in area and population—it is just under the size of Scotland and has a population approaching 3 million—is nevertheless one of the fastest developing countries of the Caribbean. The reason for this is first of all the stability of the Trujillo Government. The effect of this on the country's economy is proved by the Republic's latest trading figures: exports in 1957 were a record £57.5 million giving a favourable trade balance of £14.9. Another significant fact is that the Dominican peso is at parity with the U.S. dollar and is one of the few currencies in the world which can be exchanged without limitation for gold. A further sign of the standing of the Republic is that American and Canadian concerns have invested £100 million in various ventures.

As in other Latin-American countries, recent mineral discoveries are playing an important part. But for many years to come **agriculture** will be the chief foreign currency earner. In the last 20 years, however, there has been a marked increase in the urban population, from 18 per cent to 26 per cent of the total, and the

number of industrial concerns has trebled, their sales rising from £5.5 million to £60 million.

The Republic's main export crops are sugar, over one million tons being produced annually; coffee (30,000 tons) and cocoa (18,000 tons). A Government programme for encouraging the diversification of crops has resulted in the introduction of new tobacco strains, cotton, sisal and the planned expansion of cattle and vegetable raising. Dominican cattle-breeding is the most advanced of all in the Caribbean area. The Republic supplies fresh meat for Puerto Rico, Curacao and Venezuela, as well as livestock.



Wherever possible a new crop is linked with a new home industry. For example there are factories for the manufacture of sisal ropes and sacks, cotton and rayon cloths, and furfural from sugar cane waste.

A feature of Government agrarian policy has been the breaking up of large **sugar** estates into medium-sized holdings and large-scale irrigation schemes which have also given the small farmer a chance to expand and farm economically-sized units. As a result the proportion of land under cultivation has risen from one-third in 1935 to over one-half today. Much of the land that is not being cultivated in the central mountain range is being devoted to forestry. The Republic is self-sufficient for timber and may become a considerable exporter.

In both agriculture and industry the national Credit Bank has played a major role—advancing loans to farmers, providing seed and advisers, and also setting up farm implement centres from which small farmers can hire tractors and equipment.

Progress in agriculture and industry could not have been made without effective methods of communication. Over 2,000 miles of concrete highway and 400 bridges have been built in the last 20 years.

All the **cement** used for these projects and for all other building is produced locally, and there is a flourishing export business.

The number of motor vehicles has risen by 800 per cent in this period.

Road transport is used in bringing crops and minerals to the ports from the interior. Rail transport is re-

GROWTH OF THE DOMINICAN REPUBLIC

1. Population growth	2. Agricultural Output
1920 894,665	1936 \$13.6 million
1935 1,479,417	1946 \$55.7 million
1950 2,135,872	1956 \$110.7 million
1955 2,546,576	
1957 2,701,000	
3. Credit Bank Loans	4. Cement Production
1946 \$1,451,000	1947 8,000 tons
1951 \$8,512,000	1951 50,000 tons
1954 \$49,204,000	1956 123,000 tons
1956 \$21,430,000	
5. Main Import Groups	
Imports in 1956 totalled £38,567,000, distributed as follows:	
Machinery and equipment	15.9%
Agricultural products	8.7%
Mineral fuel	8.2%
Motor vehicles	7.9%
Textiles	7.6%
Steel and iron products	7.4%
Electrical equipment	6.8%
Chemicals and pharmaceuticals	5.8%
Building materials	5.7%

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stricted to stretches of track from the refineries to the sugar cane plantations.

There were no deep water ports before 1936—now there are nine which can accommodate ships of up to 32 feet draught. At the sugar ports of La Romana and Rio Haina there are the most modern installations in the world for loading raw sugar in bulk. To cater for the increased shipping activity—over one hundred British ships alone visit Dominican ports each year—two fully equipped shipbuilding and repair yards have been recently opened, one independent and one government-controlled.

Industries besides those already mentioned include the biggest chocolate factory in Latin America, a glass factory, cigar and cigarette factories, makers of chemicals and pharmaceutical products, sugar refineries of course, and shoe, clothing and food processing plants.

In recent years detailed mineralogical surveys have been made and now a fair assessment is possible of the mineral wealth of the country. The most valuable single source is likely to prove to be the 'Salt Mountain' at Barahona—a ten-mile block of almost solid salt with an estimated weight of 500 million tons and an annual output of 600,000 tons.

The Canadian-American company of Falconbridge Nickel is spending £25 million on nickel mining in the western provinces.

The Aluminium Company of America has been granted rights over bauxite deposits amounting to 60 million tons with an aluminium content of 45-50 per cent.

Last year 158,000 tons of iron ore valued at £815,000 was mined in the Republic, all of which was exported to the U.S. and Belgium. There are plans for building an ore reducing plant near the deposits.

Copper is also thought to be present in quantities which would make it worth exploiting.

Other minerals which are exported include gypsum, granite and marble. Oil exploration is being carried out by a group of Texan oil companies. A strike has already been made in the south and oil will be exported in 1958 for the first time.

The increasing potential of the Electricity Corporation, which was nationalized in 1955, is raising demand for electrical appliances. A total of 193 million kilowatt hours was produced in 1957, compared with 163 million k.w.h. in 1956. Future plans include a large hydro-electric scheme in the north-west and a nuclear power station on the south coast.

The Republic is in fact a young, discerning market. The high quality of British goods is recognized, and factory equipment, bicycles and whisky have already enjoyed considerable success.

Prospective exporters should note the frequent services from British ports.

END

BUSINESS

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Look carefully at these cartons for facial tissues. There is a story behind them! They have been designed to meet a particular manufacturer's requirements for high-speed mass production and effective shop display. To achieve this, they have to be exactly right in shape, size, strength, protective qualities and suitability for printing.

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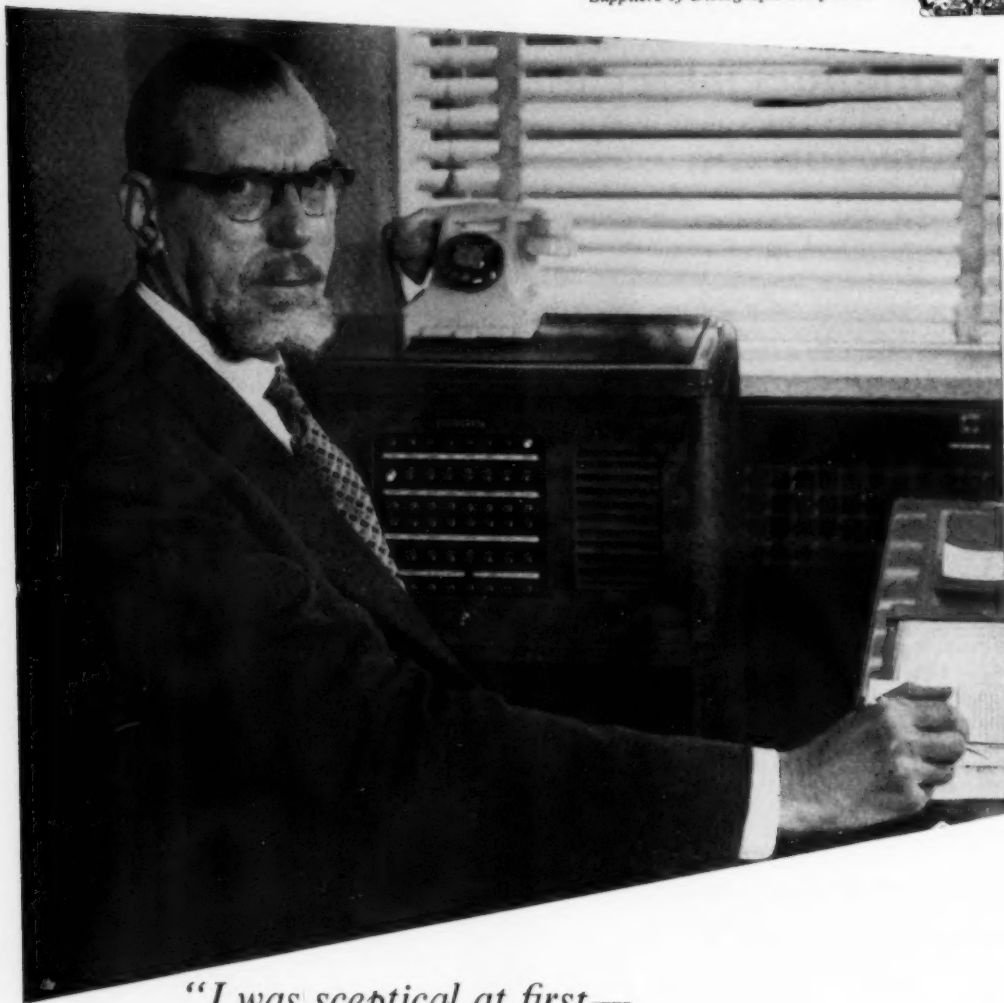


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27 BRANCHES THROUGHOUT THE UNITED KINGDOM AND IRELAND

MARCH OF BUSINESS

Automation school needed in Britain

Progress in applying automation techniques would be speeded up if the ordinary industrialist knew more about them. One way of spreading knowledge would be to set up an automation school, similar to the Reactor and Isotope Schools at Harwell.

This suggestion was made recently by Dr. D. B. Foster, Chairman of the Scientific Advisory Committee of the London Region Engineering Industries' Association. He stated that about eight subjects ought to be thoroughly taught in both theory and practice. These could probably be covered in a course lasting four to six months.

Dr. Foster added that apart from the importance of setting up adequate teaching facilities, there was the question of where to go to get answers to specific automation problems. At present, there was no centre of knowledge apart from the equipment manufacturers themselves. A lot of people "knew little bits of the jigsaw, but few knew the whole picture."

Will the bosses blazer catch on ?

In the Land of Executives there is a new development in business class-consciousness—a boss's blazer. Of navy blue, it has an embroidered pocket badge with the letters 'P.I.' on an open book bearing the words 'Executive Staff'.

The 'P.I.' stands for Prentice-Hall Inc., the big American book publishers. It is they who have hit on

this method of making their top brass stand out from baser metals. Other companies are now beginning to copy it.

Thirty sets of insignia (together with matching tie-clips) were issued to Prentice-Hall divisional heads. But the men had to buy their own blazers.

Whether this idea is going to spread to Britain is not clear. Our own fancy is for executive umbrellas which, when opened, display a graphical and simplified version of the annual report. For well-bred British executives attach more importance to good communication than to self-advertisement.

Work study training course uses T.V.

A bit of work study history was made at Paisley, Renfrewshire, last month when 21 students plus instructors watched on a closed-circuit TV screen the activities in a small retail ironmongery shop. TV was used because if they had made their investigation inside the shop, there would

have been no room for customers and thus nothing to study.

The study took place during a pilot training course arranged by the Paisley Committee of the British Productivity Council. The students who took part in it were all executives from local retail firms.

Their observation post was located in the back court of the guinea-pig shop. Two microphones on the main serving counters picked up the conversation between customers and counter assistants.

Several slants on industry at Brussels

Now the initial ballyhoo is over, it can still be claimed that the Brussels Exhibition is the greatest man-made show on earth.

But what impression does the visitor get of industry's contribution? At first sight, oddly enough, the answer is 'not very striking', despite the immense aluminium atomium which bestrides the whole scene.

Only the Russian and the British Industry Pavilions have the clean,

Next Month

How to Delegate Authority

This is one of the subjects discussed by managing directors at a special BUSINESS luncheon

Air Conditioning

What this rapidly growing industry has to offer for factories, offices and other buildings

simple lines of a modern workshop. The Russian effort is in fact devoted almost exclusively to its industrial achievements; these, taken with the gigantic but naïve murals and a huge sculpture of Lenin, give the idea of an industrially competent but overpoweringly dreary state. The British Industry Pavilion is largely composed of small, discreet stands which hint at quality and conservatism. The only trace of our industrial imagination comes from our other pavilion (our three-steeped 'way of life' effort) where our achievements in atomic science are cleverly but modestly presented.

The U.S.A. has been the cleverest of the three atom Powers. Its industrial exhibits are confined almost entirely to a gaudily-painted 1902 Ford car, to electronic machines and to colour television. The rest of the huge circular building is given over to American culture or to displays emphasizing the comforts and pleasures that a successful capitalist State can confer on the population at large. It seems to say: "Our industrial efficiency is already well-enough known, so come and have a look at the civilization behind it all."

Batch sampling in the office

Systematic quality control is familiar enough in manufacturing operations but few businesses think of applying it to their clerical work.

The trouble in many offices is that there is too much *unsystematic* quality control. Checks are made at each stage of the work and there are also 'unofficial' checks to ensure that all errors have been detected.

Sometimes this leads to the maintenance of records primarily to check other records. Moreover, a multiplicity of checks is not necessarily effective because the psychological effect is to reduce the sense of responsibility of the checker.

These points are made in a recently-published report* by the Organization and Methods Study Group of the Office Management Association.

The five-man team stress the importance of determining the appro-

EXPORT ARTICLE POSTPONED
For space reasons the fifth article in the series "Battle Drill for Export Sales Executives" has been held out of this issue. The series will be resumed next month.

CORRIGENDUM
June 1958 issue, page 17, fourth para. The reference in the third sentence should have been to India's "imports of steel", not "exports of steel".

appropriate standard of accuracy to be expected in each job, and of relating the cost of checking to the risk of error. They say:

"It is commonly assumed in office work that perfection is the only standard that management can adopt openly, yet this is an expensive aim and unlikely to be achieved. Performance may fall far short of perfection without being unacceptable if the errors are only minor, and the enforcement of a higher standard may be wholly uneconomical."

The possibility of applying batch sampling to clerical jobs is examined in the report. The team cite the example of a large department store which investigated the standard of work in its typing pool. This showed that on average eight errors per 100 letters were passed by the four checkers.

The store decided to regard the existing standard as acceptable: if it could be maintained or bettered, 100 per cent checking could be discarded. The method adopted was continuous sampling of each typist's work. As long as the proportion of errors in her work did not exceed eight per 100, the rest of it was accepted without checking. If, however, the quality fell below this standard 100 per cent checking was carried out until it rose.

At the beginning one-third of each typist's work was checked. This gave enough information after a few weeks to decide the minimum amount of checking needed to ensure that she was maintaining the quality level. Now there is a great variety in the amount of checking needed—in some cases as little as 1 per cent.

*The Control of Quality in the Office. Office Management Association Ltd. 9s.

New provincial service for selecting executives

Until a couple of years ago the

idea of an executive appointments bureau was practically unknown in Britain. Now there are three of them. The latest—Executives Selections Limited—has its headquarters in Cardiff.

Like its prototype, it is an offshoot of a management consultancy business. E.S.L. follows the usual practice of bringing employer and prospective employee together in a discreet and confidential manner. It helps the client with the preliminary interviewing, and also offers advice on executive training. Within six months of a candidate being appointed, E.S.L. undertakes to have a follow-up discussion with the client about his progress.

Progress in the bowler-hat battle

How are axed and retired officers faring in the battle for bowler-hat posts? The Ministry of Labour recently issued these figures:

► During the first three months of 1958, details of 958 regular officers were added to the Professional and Executive Register, compared with about 1,350 for the whole of 1957.

► The number of vacancies notified specifically for ex-officers increased considerably. There were 183 of them in the first quarter of 1958.

► Work was found for 429 ex-officers by all agencies. The Ministry's total of 152 placings was an increase of about 50 per cent on the previous quarter.

► Nearly 900 officers remained unemployed at the end of the quarter. This number included many older officers who had been registered for some time; also some who lived in areas where employment opportunities were limited.

International views on the value of standardization

Will the standards engineer ultimately emerge as a key industrial figure? Many of the engineers and others who attended a recent International Standards Organization conference in London seemed to think so.

R. B. Armstrong, head of the

BUSINESS

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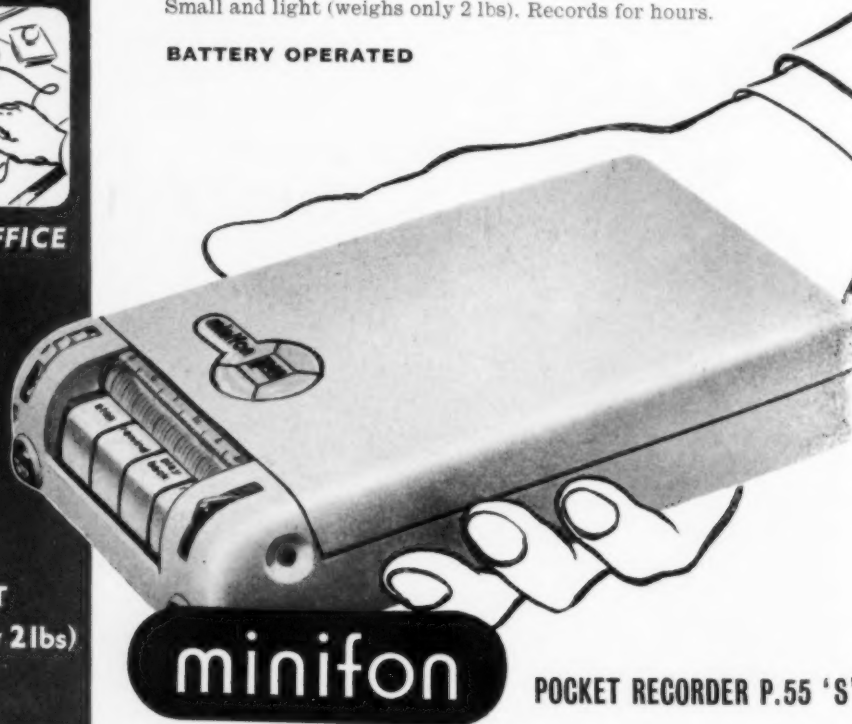
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Standardization Division of Marconi's Wireless Telegraph Company, claimed that a Standards Department should be concerned with all stages from the purchase of raw materials to the marketing and possible maintenance of end-products. Many of the 230 delegates supported him. One (from a leading motor accessories company) said that although his company's engineering staff had initially opposed a variety production programme, they now whole-heartedly supported it. He emphasized, however, that the impetus for such changes must come from top management.

Another speaker reported that rationalization had enabled an oil company to reduce by 75 per cent the 40,000 different types of valve used at their refineries.

Consensus of opinion was that the standards engineer's job was now full-time. Also that in a comparatively small firm it should rank high enough to absorb the interest of the 'top man'.

Pensions schemes cover half male workers

Half of the male employees in Britain—about 7 million—are now covered by occupational pension schemes. In addition, about 1½ million female employees are similarly covered.

These figures—which show a considerable increase on estimates of a few years back—are revealed by a recent survey by the Government Actuary. Among its other disclosures:

—Last year, £246 million was paid into private schemes by employers and employees (including, in the case of employers, payments for back-service and deficiencies). The annual pension roll was about £50 million. Corresponding figures for public service and nationalized industries were about £221 million for contributions and £150 million for pensions.

—A substantial number of the current schemes are non-contributory.

—Relatively few members of schemes are entitled to a lump sum

JULY, 1958

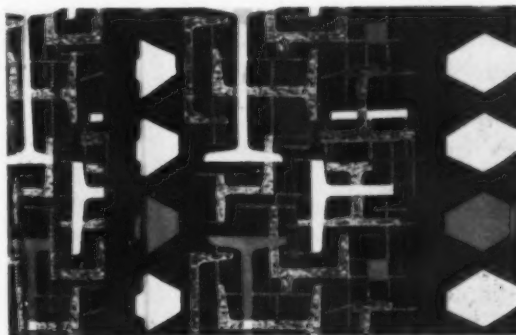
PEOPLE PRODUCTS PLACES I



ONLY TWO MEN are required to operate Hall and Co's latest precision concrete mixing plant. Main features are fully automatic punched car control of portioning (see above) and pneumatic conveyors for lifting and moving cement. Output is 60 to 90 cubic yards an hour.



SUPERVISOR W. F. Robinson had good reason to smile when he heard that a suggestion of his had won a record award of £599 under H. J. Heinz and Co.'s suggestion scheme. Mr. Robinson's idea will save several thousand pounds a year. Heinz's awards are based on either 15 per cent of estimated net saving or 10 per cent of estimated gross saving (whichever is larger) in the first year.



'HAPPY EXAMPLE of a job well done' is how textile manufacturers Gayonnes Ltd., describe this design for curtaining. Specially designed for the British Iron and Steel Federation's stand at the Brussels exhibition, its motif of steel sections is original and effective.

without pension on retirement, although death benefits usually consist of lump sums.

—On withdrawal, an employee usually receives a sum equivalent to his total contributions. If joining another firm with a pension scheme, he may qualify for a transfer value, but this is exceptional.

Biggest provincial BEE in September

This year's Business Efficiency Exhibition—at City Hall, Manchester, on September 22-27—will be the biggest ever held outside London. At least 107 firms from all over the country will participate, offering visitors an A-to-Z display of the products of an industry whose output rose to more than £70,000,000 last year.

BUSINESS will mark the occasion by publishing a special issue in mid-September. Giving a complete preview of the exhibits this will be sent free of charge to all current subscribers.

More new companies registered last year

For the first time since the Companies Act 1948 came into force, the number of new companies registered in one year has exceeded 20,000. The Companies General Annual Report for 1957* shows that the latest figure is 20,665—18 per cent more than in 1956 and 35 per cent more than the average for the previous five years.

Total number of companies on the register at December 31, 1957 was 331,119, compared with 317,988 at the end of 1956 and 171,404 at the end of 1938. The increase is mainly in private companies—the number of public companies has dropped very slightly since 1956.

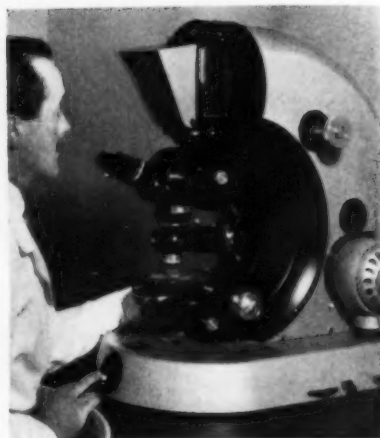
*H.M. Stationery Office. Price 1s. 9d or 2s. post paid.

Gift to Oxford for science-training

Mullard Ltd. have offered Oxford University £50,000—payable over ten years—towards the cost of developing a new college which will help to meet the need for more university-trained scientists.

PEOPLE PRODUCTS PLACES 2

AUTOMATIC camera-microscope, made by Carl Zeiss of Germany, is the first of its kind in this country. Padley and Venables Ltd. will use it for research and for checking on quality work of their steel and tungsten carbide products.



PIONEER in a new management field for women is Hilda M. Harding recently appointed manager of a new branch of Barclay's bank. She started with the Bank over 20 years ago as a shorthand typist, and eventually became secretary to the general secretary. Her 'grooming' included training at the bank's school at Wimbledon and at the Administrative Staff College, Henley.

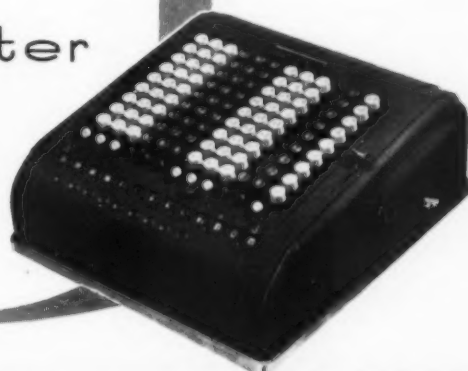


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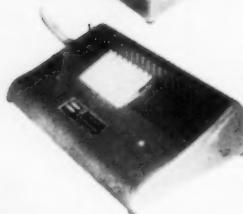
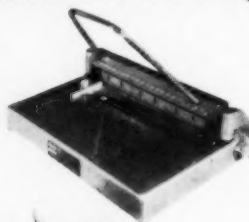
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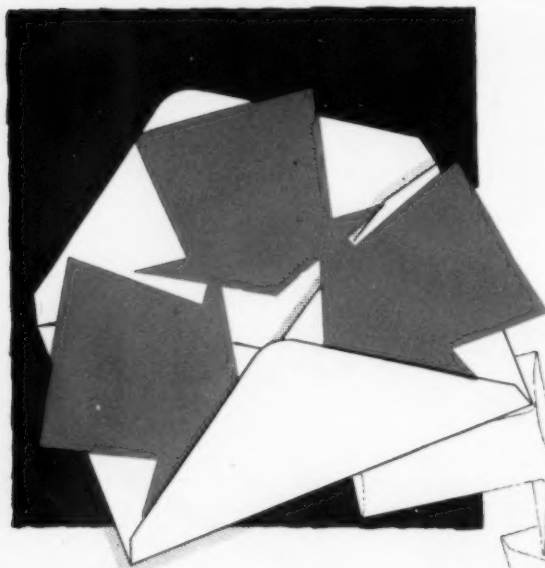
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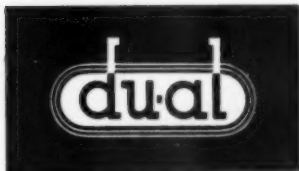
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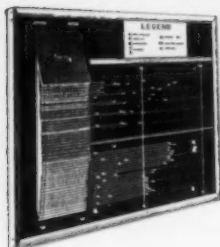


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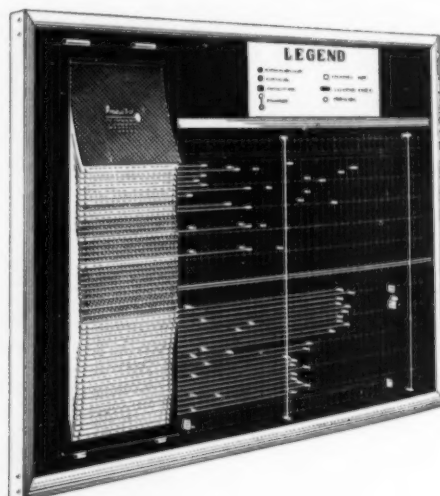
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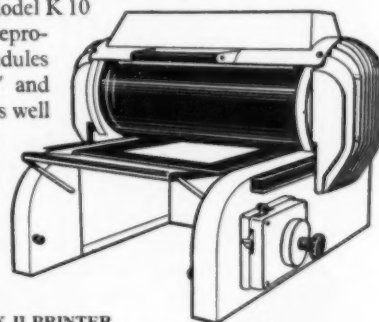
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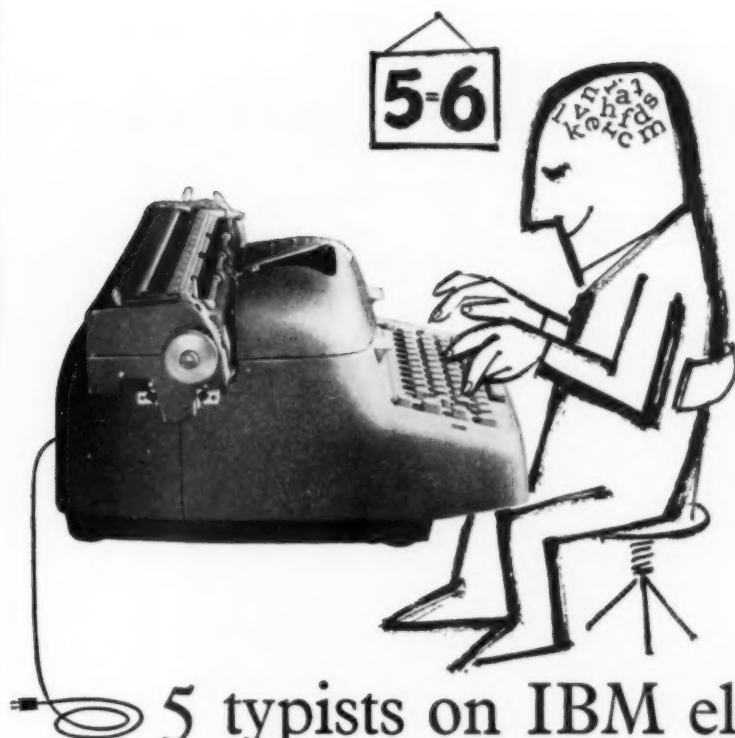
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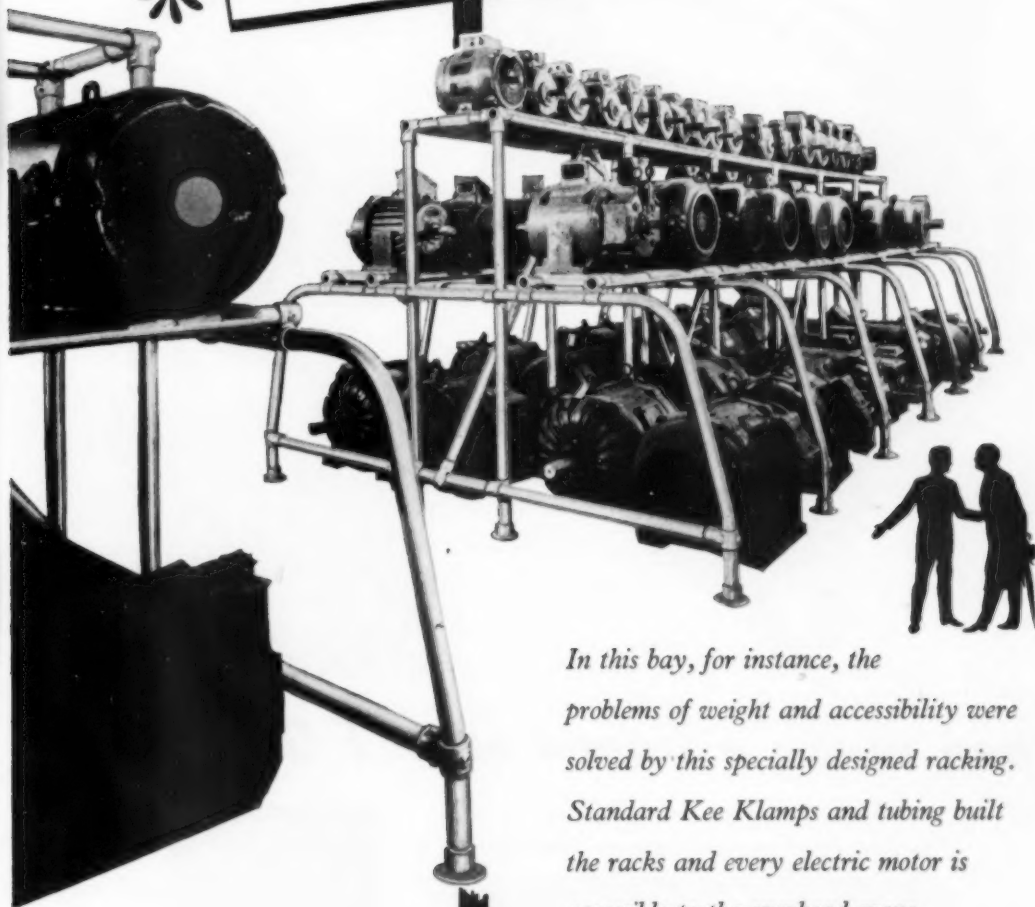
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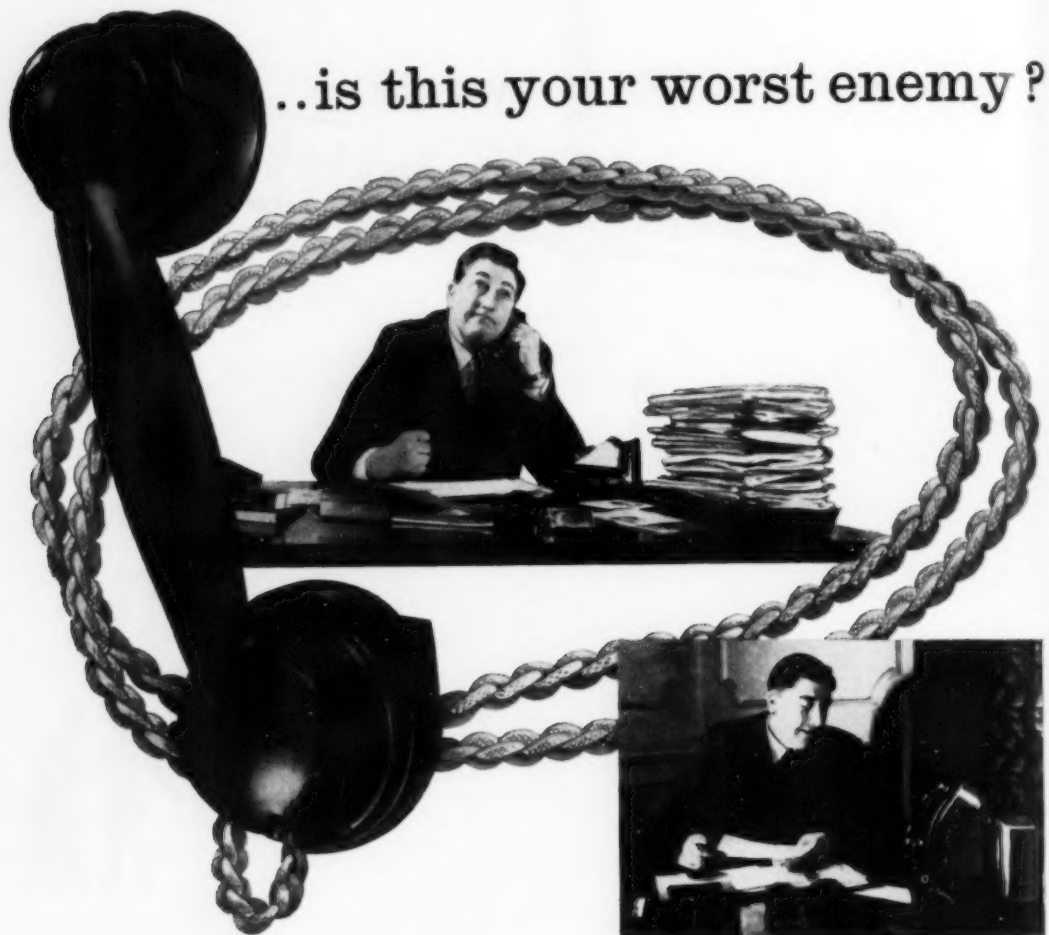
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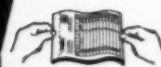
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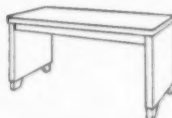
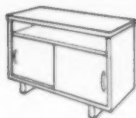
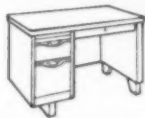
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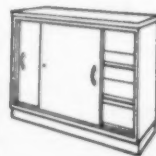
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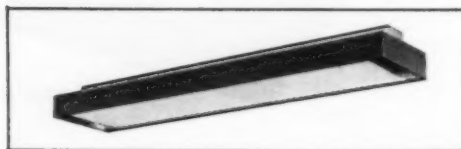
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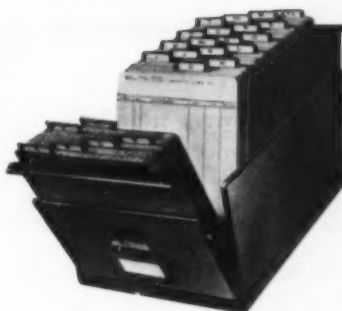
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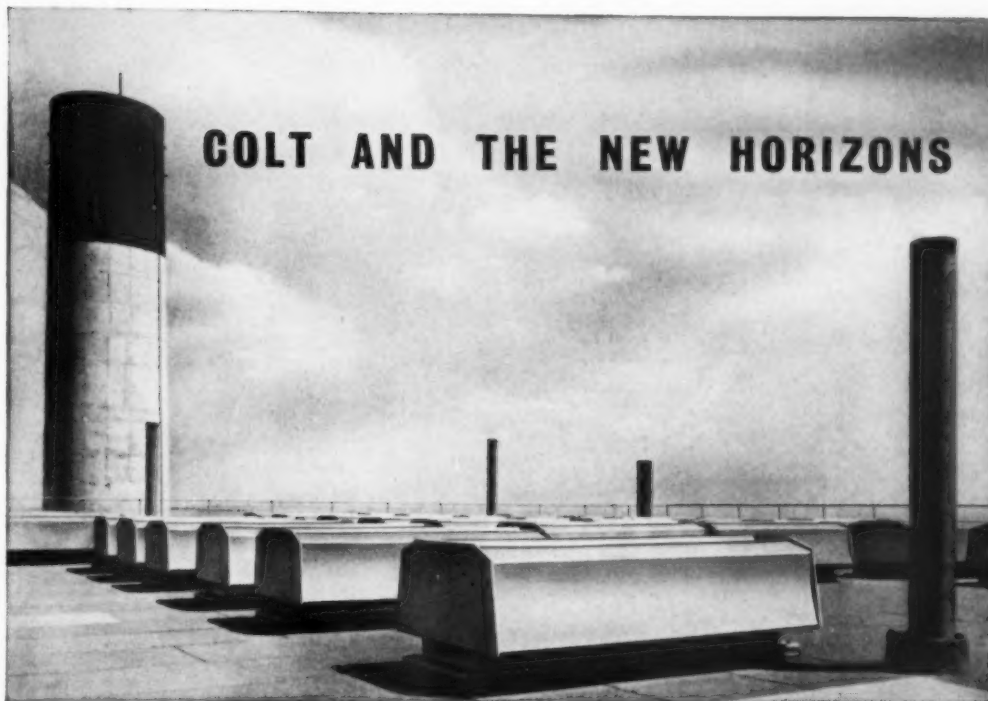
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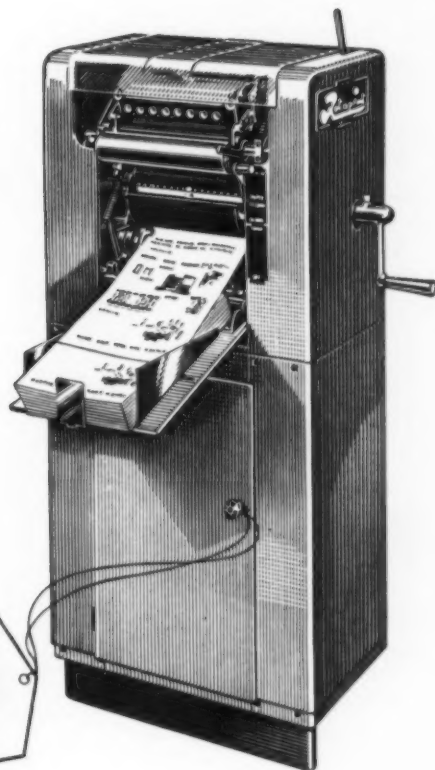
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Telling the true profits story: Another view

Sir,

With reference to the article "How to Tell the True Profits Story" (BUSINESS, May, page 79) may I point out that:

1—Company Accounts are controlled by the Companies Act: at present the 1948 Act. There should therefore be, in that Act, a definition of the word 'profit'; but there is no such definition. In consequence, the word is used very loosely.

2—There *is* a definition in the Finance Act, namely for purposes of taxation, although there is not even a complete definition here as 'profit' for purposes of income tax differs from 'profit' for purposes of profits tax. However, at least both produce a figure from which taxation has not been deducted. The *true* profit, whatever it is, must at least come within that category as the tax paid is levied *on* profit.

3—There is more force in the argument concerning what should be deducted from the trading profit to cover so-called 'depreciation' ('wear' is perhaps the better word). It is doubtful if the argument ever will be resolved; but at least certain allowances are made by the Inland Revenue for this before their own figure of profit is determined (whether for profits tax or for income tax) and, in their view, any provision made for additional 'wear', or cost of replacement, should be by way of retention of profit for this purpose.

That, in effect, is what happens when companies make provision for 'depreciation' exceeding the amount allowed by the Inland Revenue as a charge against profit. To what extent such additional provision is necessary to ensure a 'true' profit is bound to be a matter for argument and for individual views and action. Neither directors as a whole, nor accountants as a body, are likely to agree on a formula for this.

There is therefore little chance of an agreed formula for arriving at a 'true' profit; but, whatever basis is used, it must, to be correct, be *before* taxation, not after—the tax, as referred to above, being tax *on* the profit, without which the tax (on profit) would not be payable.

4—There is every good reason to draw attention to the amount of tax that is *levied* on the profit, thus making it difficult to retain sufficient funds in the business to finance it adequately, especially under conditions of inflation. The more this aspect of the matter is stressed, the better. It is thus evident why so much profit has to be earned. It is just a matter of 'ways and means'.

Everyone knows that a company must have funds, and the *funds left* after payment of tax and the current year's contribution towards necessary replacement of worn-out plant etc. (rather than the 'profit' left after deduction of 'depreciation' and tax) may be the better way to put it to

achieve the result desired by your contributor, in common with many more of us who have the same object in view.

N. K. MOUSLEY

Birmingham, 1

How the Chancellor could cut paperwork

Sir,

While I applaud the Chancellor's decision to increase the initial allowance on plant and equipment from 20 per cent to 25 per cent, and on buildings from 10 per cent to 12½ per cent, would it not save a lot of unnecessary paperwork if he were also to amend the Finance Bill to cut out petty depreciation allowances?

I suggest he should make the minimum depreciation allowance on any piece of equipment £5 per annum. This would mean abolishing the practice of following out the scales of depreciation exactly and writing off one or two pounds a year on minor items of equipment each year, carrying forward the balance over a considerable period of years.

An important side effect of putting a £5 minimum on depreciation allowances would be to stimulate the re-equipment of both offices and factories with those many small modern machines that can make so much difference to productivity.

H. K. BATESON

Selsdon, Surrey

LONG-RANGE PLANNING

How firms decide where they want
to go (and try to get there)

by Peter Spooner

SOME time ago Lord Piercy, chairman of the Industrial and Commercial Finance Corporation Ltd., told a meeting of directors: "Forward planning is a subject of the greatest importance. The problem of the I.C.F.C. since its inception has often been to find sufficient firms with sound enough plans to assist with finance. Provision of finance cannot make up for a badly thought-out project; or for lack of co-ordination in planning. . . ."

Does this statement fairly reflect the general attitude of British companies to long-range planning? It is hard to say. No one has investigated the position fully. But the results of an American survey are shown on page 55, and it is pretty safe to assume that in Britain too long-range planning is something more often talked about than done.

BUSINESS has been questioning a number of senior executives about their companies' planning policies

and methods. In many cases the immediate response has been: "Of course we are always thinking ahead and discussing long-term projects. But I'm afraid that we don't do nearly as much formal planning as we ought to."

Then, as a rule, confession has turned to defence:

"In *our* type of business there are so many unpredictable and uncontrollable factors that long-range planning is scarcely practicable. . . . We have to be on our toes all the time, reacting immediately to the conditions that arise. Heaven help us if we were tied to a hard-and-fast plan which, in the event, was widely off the mark!"

These comments indicate that long-range planning means different things to different people. Sometimes it is confused with long-range forecasting. They are closely related; but they are not the same thing. A plan is a statement of what a company

intend to do, not merely of what they *expect to happen*. And so it doesn't necessarily tie them to one method of doing it. The method or methods have to be decided—and constantly adjusted—in the light of events.

Several of the firms approached by BUSINESS had very definite views on the purpose and value of long-range planning. What these add up to is this:

► One advantage of drawing up a plan is that you must clearly define company aims—which automatically makes sure that everyone in the organization is heading in the same direction.

► You also have to take a good look at the current state of the business. Consequently there is a tendency to uncover organizational weaknesses which might otherwise pass unnoticed.

► The existence of a formal plan—especially one that involves expan-

Business planning is more a philosophy than a science. It heads everyone in the same direction, builds morale, uncovers weaknesses and avoids the danger of 'drifting'. Yet many firms still fight shy of it. This article describes what can be and is being done

sion—is a morale-builder. Temporary setbacks are seen in their true perspective.

► A long-range plan is not merely a series of 'difficult' targets, continually exhorting a company to greater efforts. It is also a measure of restraint and discipline—which may help to offset the danger of a company being deflected from its most profitable course by short-term opportunities to make easy profits.

► A company can easily be driven off course by such things as a lack of balance between the personalities in different departments of the business, or by the actions of competitors. A formal plan ensures that any change of direction, however small, is properly evaluated.

Two case-histories are given here. They were chosen because the firms concerned are vastly different in most respects but have certain things in common. One is a relatively small

group; the other very large. Both are expanding. Neither suffers from a surfeit of centralized control and administration. Both have to contend with 'unpredictable' and 'uncontrollable' factors: in one case, rapid technological change, in the other, the vagaries of consumer-taste.

Case History—1

In such a young and lively industry as electronics, there is automatically a feeling of 'moving forward.' This has dangers as well as advantages: individual firms are liable to be blown off course by gusty trade winds, and may eventually find themselves in less profitable waters than they expected.

For this reason the Solartron Electronic Group Ltd. place great emphasis on long-range planning. Its main purpose, they say, is to make sure that "the business knows exactly where it intends to go and

that all executives are heading in the same direction."

Solartron have grown fast. In 1950 they were an 18-man business with a monthly sales turnover of £1,500. Today they have about 750 employees and a monthly sales turnover approaching £200,000.

Their long-range planning methods are based on the assumption (rather, the determination!) that a fast rate of growth can be continued. They are not deterred by the fact that a big proportion of the sales which they are forecasting for the more distant future refer to products which are not yet thought of, let alone developed. For they have confidence in their ability to *create* products and markets in accordance with a well-devised programme.

Long-range planning is as much a philosophy as a science. Solartron's philosophy runs like this:

—The further ahead we plan the longer we have to *organize the action*

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Long-range planning is as much a philosophy as a science. Solartron's philosophy runs like this:

—The further ahead we plan the longer we have to *organize the action*

which will enable us to meet our programme.

—A long-range plan is not a straightjacket. It tells us where we want to be in four or five years' time. But it doesn't tell us how we are going to get there, except in broad terms.

—Because we have a planned objective we are less likely to be deflected from our course. It gives us a yardstick to measure our progress, and an incentive to control new situations, rather than to allow them to control us.

—Mistakes are bound to occur when drawing up long-range plans, but these are revealed as the plans are cross-checked and modified. It is much cheaper to make these mistakes on paper than in real life.

Solartron's first aim is to co-ordinate and balance the main activities of their kind of business: marketing, research and development, production and finance. This is done by drawing up a five-year master plan and re-projecting it at the end of each year.

The starting-point is a forecast of total sales volume—largely an extension of past and current rates of growth. Provisional targets are then set for each of the main product groups (existing and proposed). This gives top management a chance to 'swing' the business in what seems to be the most profitable direction.

At present, electronic laboratory instruments represent about two-thirds of the total sales volume. This side of the business is still growing, but even faster expansion is planned in the production (often to customers' specifications) of large-scale electronic equipment. The aim is to broaden the group's activities; in particular, to increase the size of the one-to-two-year order book and thus help to stabilize the business during periods of temporary change.

One of the biggest problems in a 'new technology' industry is to establish the ratio between investment and profitability. Solartron confess that they have had to rely on a strong element of personal judgment when apportioning development finance to specific products and product ranges. But this problem is now being tack-

led by their three-year-old operational research department, which is progressively giving top management more and better planning information. In any case, the Solartron 'philosophy' is that it is much better to have a 'go' at long-range planning with imperfect or incomplete data than to do nothing at all.

The rough master plan is prepared by the group board. It is then passed to the managements of the manufacturing and selling companies, who make more detailed forecasts by sales area. They have the responsibility of developing their own 'product mixes' within the framework of the master plan, and of budgeting for their own requirements in plant, staff, factory space, etc.

In the light of these detailed estimates the total sales volume is re-forecast. Then forecasts are made of—

- gross margin over direct labour and materials (by product groups);
- manufacturing overheads;
- administrative overheads;
- development write-off;
- interest on loan capital and also dividends.

Inevitably these forecasts have a certain built-in flexibility; it is difficult, for example, to predict the actual margin on a product which is still at an early stage of development. But Solartron find that past experience is a pretty dependable guide to future levels. The important thing, moreover, is that the forecasts represent the levels, which in the management's opinion, *ought to be attained*—and are thus the foundations of a series of checks which can be applied continuously to the *actual* results.

From this information, the management compile (a) an outline profit and loss forecast and (b) forecast balance sheets. In each case the annual figures are projected for a period of four years. Basically, the methods are as follows:

Profit and Loss Forecast

- ▶ Gross margin for each product group is calculated by multiplying the percentage margin by the deliveries forecast in the master plan.
- ▶ An allowance is made for the fact

that a small proportion of the overheads have gone into work-in-progress and into finished products awaiting delivery (both increased because of the overall expansion of the business).

- ▶ The deduction of overheads—at the forecast percentage of sales value—gives net profit before appropriations.

- ▶ Deductions are then made for loan interest and dividends (as forecast) and taxation (estimation). This gives the anticipated retained profits for each year.

Forecast balance sheets

- ▶ When compiling 'current assets' for each year, the following calculations are made:

Debtors: About two months' volume at the anticipated sales price.

Raw Materials: Two to three months' volume at the forecast percentage of sales price. (In both cases, the time depends on past experience.)

Finished products: One month's volume at the forecast percentage for materials plus direct labour plus manufacturing overheads.

- ▶ Fixed assets are obtained by forecasting actual requirements in buildings and plant.

- ▶ In the 'current liabilities' for each year, the 'creditors' figure equals two months' sales volume multiplied by the forecast percentage for raw materials. 'Current taxation' is taken from the preceding year's 'future taxation' in the profit and loss forecast.

- ▶ The profit and loss forecast also provides 'future taxation' figures and profit and loss account reserves. To these are added the value of the company's issued share capital (as planned).

- ▶ Finally a balance is struck for each year by filling in either the 'cash at bank' or 'bank overdraft' columns.

The profit and loss account and balance sheets are interpretations of the five-year plan, and indicate whether it is practical from the financial point of view. For one year ahead much more detailed forecasts are drawn up. These are broken down

into quarterly programmes, which are progressively checked and revised in the light of operating results.

Solartron believe strongly in 'control by exception'. In their type of business the main controls are:

- 1—Sales volume.
- 2—Margin.
- 3—Overhead expenditure.

In practice they find that in the short run number two is comparatively stable; therefore the closest watch has to be kept on the way in which numbers one and three measure up to the short-term programme.

Solartron believe that it is up to them to set skilfully their own course and to build in flexibility and controls to enable them to master whatever situations arise. They say: "If we are not meeting the forecasts our first reaction is not to cut these back but to step up our efforts. Without a long-range plan there might be a temptation in such cases to accept a more conservative programme and a lower level of profitability. That is the main value of sticking our necks out in the first place."

Case History—2

The Bata Organization is in many ways unique: a 'family business' which has spread into 65 territories and now employs more than 50,000 people. The smallest unit has 10 employees; the largest about 15,000. Their products—shoes—are continually influenced by the whims of fashion, and marketing conditions differ from one territory to the next.

In these circumstances one would hardly expect to find that the whole organization works to a master plan. There are, in fact, 58 independent Bata companies, each of which has its own board of directors and is largely auto-financed.

On the other hand, there is a large degree of uniformity in their administrative methods. Partly it is achieved through the activities of two 'service' companies; one in Canada and the other in Britain. These act, in effect, as management consultants, with advisory but not executive powers. Their specific responsibilities include technical and commercial

research, forecasting and personnel development.

From information supplied by the service companies—plus their own knowledge of local conditions—the management of each operating company draw up a five-year plan known throughout the organization as "Pathfinder". This is based on a very careful analysis of past experience, government and business statistics, general market considerations and the economic outlook of the territory concerned. It also incorporates (in the words of Thomas J. Bata) "a good portion of optimism and progressive spirit on the part of the executives who prepare it."

Each "Pathfinder" plan is re-projected annually. Basically it does three things at once:

1—Sets specific targets for the company to aim at.

2—Provides a yardstick by which the management can frequently measure their progress.

3—Imposes a measure of restraint on over-ambitious short-term plans which might eventually run the company into difficulties.

(This question of 'restraint' is important. For example, management might be tempted to over-produce, over-sell or acquire too heavy commitments during a boom period. The service companies have the time and resources to help them to look ahead.)

Short-term planning by each company is based on a six-month 'estimate', divided into weekly figures. This is used for setting sales quotas, purchasing quotas, personnel targets, etc. Together with its supporting

Advance Planning: How American Firms Make Out

Recently the American journal *Management Methods* made a survey to find out how American firms were tackling advance planning. This is what they report:

● About one-third of the firms surveyed had no plans extending beyond one year. Half had informal plans; less than one-fifth had formal plans.

● Operations most commonly covered by advance planning were sales (69 per cent of the planners) and company expansion (63 per cent). Notably lower were research and development (42 per cent) and product design (30 per cent).

● In nearly one-third of the firms, planning was not assigned as a specific responsibility.

● In only one-third of them was planning a committee job.

● Asked what considerations entered into advance planning most often, 44 per cent cited limitations of their executive staff.

● Only 28 per cent thought that they were doing as much planning as they should.



1 Sequence cards go into a cassette



2 Cassette is loaded into a metal canister.

Punched Cards their Selective

*New system combines handling with
gets more work more quickly from*

THIS was the problem that faced the closing department of the Lotus Shoe Co.'s Stafford works: about two-thirds of the department's work could be organized on a straightforward flow-line basis, but the remaining third required batches of shoe uppers to pass back and forth from one work station to another. How could the flow of this type of work be rationalized?

The solution was to use a new selective overhead conveyor controlled by punched cards. It enables work to go in any desired sequence from station to station, both back-

wards and forwards, without anyone getting up and trundling racks around. This is the complete system:

- Trial runs decide what is the best production method for each shoe design. If the sequence of operations is straightforward, then the flow-line section of the closing room can be used. But if the sequence is irregular and involves reverse movements, then production is scheduled for the conveyorized section.

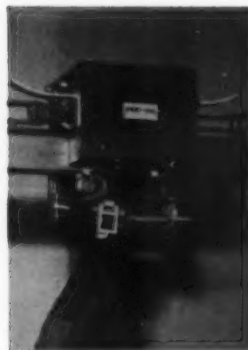
- The production sequence is analysed on an **instruction card**. This is divided into small squares. Each horizontal line of squares represents



3 Top card is pushed into the run forward sensing position



4 Canister and work bag are placed on the conveyor.



5 Sensing unit drops bag at first work station.

Control Conveyor

by Stephen Rose

*production control,
smaller floor-space*

a 40-column punched card. Information is entered just as it will be punched:

- Five columns give the design code number and letters.
- Up to 20 columns can be used to describe individual production operations (e.g. 'skive', 'lace', 'trim out' etc.)
- Two columns give a sequence number to each operation.
- Two columns show at which station each operation takes place.
- Three columns give the 'Auto-route' code, which will be explained later.

The remaining columns are spare at present, but will later accommodate piecework prices, etc.

● The instruction sheet is used to punch a **master pack** of cards. One detail card is punched for every horizontal line on the sheet, so that there is a card for each individual operation, and one for the design name and code.

● The master pack is run through an **interpreter**, which reads the operation description that has been punched, and prints it out along the top of the card.

This not only means that laymen

can see at a glance what information the card contains, but also saves double-punching and verification, as the punch operator can visually check the interpretation of the master pack against the instruction sheet.

When punching is complete, the master pack is filed in a rack until required.

● Every morning, the day's **production schedule** is passed to the punching room. It details the various designs that are to be processed that day, and breaks the quantities required into uniform batches of one dozen pairs each. Each batch is allotted a batch number.

● The punch operator selects the master packs corresponding to the designs to be produced that day and feeds them into a **reproducing punch** as many times as necessary, until one **work pack** of cards has been produced for each batch of shoes.

The work packs are then run through the interpreter, and the master packs return to their rack.

● In the production area, each batch of upper components is packed into a canvas work bag. The work pack of cards for that batch is placed in a plastic cassette, rather like a large razor blade dispenser, which holds them in place by a spring. The cassette fits into a metal canister, which in turn clips on to the work bag.

The batch is now ready for production.

● When the supervisor decides to

issue the work, the top card in the cassette is pushed forward, again like a razor blade, until the leading edge (which contains the Autoroute code in punched form) is exposed in the 'sensing' position.

- Work bag and canister are hung by a hook on the overhead monorail conveyor. This is a closed loop and moves at about 33 ft. per minute. It carries the bag to the various work stations. At each station is a sensing mechanism which grips the metal canister and sends metal probes to read the three digit routing code on the exposed edge of the top card.

If the code does not correspond to that of the work station, the bag continues on its way round the circuit. But when the required work station is reached a simple release mechanism is activated and pushes the bag off the conveyor. It drops into a canvas chute.

- When an operator requires more work she simply takes a bag out of the chute at her station. Should the chute be full, a flap arrangement cuts out the overhead sensing unit, and prevents further bags from being delivered.

- When an operator has finished with a batch, she takes out the top card (describing her operation) from the cassette, and pushes the next one into the sensing position. Then she hangs the bag back on the conveyor. Within a maximum of ten minutes it will have arrived at the next stage in its production sequence.

- At the end of the day, each operator hands in the work cards for the batches she has processed, marking them with her own identification number.

In practice the system is simple. It takes only about five minutes to hand-punch a master pack. Thereafter the cards are processed mechanically. The punched card room is only used for about one hour a day, on the average.

At Lotus the automatic system has solved a tricky production problem satisfactorily and has meant a considerable speed-up in production times for the closing room. Before reorganization it took an average of



The 360ft. conveyor has made possible considerable space savings. Although the conveyORIZED section does one-third of the closing department's work, it occupies less than one-quarter of the floor area

9 days for a batch of work to pass through the department. Now the time has been pared to four days for work on the flow-line, and six on the conveyORIZED section.

In addition, there have been considerable space savings. Machines no longer have to be laid out with gangways large enough for work racks to pass between them. In fact, though the conveyORIZED section deals with a third of the department's work, it occupies less than a quarter of the total floor area.

The 360 ft. conveyor with its 45 sensing stations was installed last August. Apart from some initial trouble with the sensing mechanisms (now modified) the whole system has

worked very well. Total cost was in the region of £6,000 (including the sensing stations, 750 work bags and cassettes). This sum excludes the punched card equipment, which is rented.

Of course, the system's possibilities go considerably further, and Lotus are, in fact, planning to extend it in the future. But the nature of their application restricts the possibilities in this case.

In theory, however, once the work cards have been recovered from individual operators, they may be sorted, tabulated and summarized automatically to produce production statistics, payroll, bonus calculations and costings as required.

END

An 'Executive Inventory'



Helped Them Plan Ahead

by Alan Peters

AN item which very seldom appears in budgets, balance sheets or long-range plans is executive manpower. For this omission various excuses are offered.

"We've plenty of youngsters who'll get a chance to show their paces in due course. . . . So long as the opportunities are there, the good men automatically rise to the top and the others find their own levels. . . . Management development is a self-generating process: people see how things are moving and naturally begin to prepare themselves for anticipated vacancies. . . . As a last resort we can afford to attract good men from outside. . . ."

These excuses are understandable because they refer to things which continually *happen*. In nine firms out of ten, a policy of 'non-intervention' produces good results. Whether it ever produces the best results is another matter. For if the excuses are examined in *that* light, they can be picked off like a row of clay pigeons.

The plain fact is that many firms

During a period of reorganization an old-established family business took stock of their most valuable assets

lose ground or have to water down expansion plans because the right executives are not available at the right time.

It is a little naïve to talk about good men 'automatically' rising to the top, however much this seems to happen in practice. There is always the danger that after a man has established himself in one job, his superiors will have difficulty in imagining him in another. And in any case he may be held down because—in the absence of planned executive development—there is no one to replace him if he is promoted.

Similarly, the individual executive is handicapped if he is left entirely on his own to prepare for 'anticipated' vacancies. Anticipated by whom? Only top management are in a position to anticipate with reasonable accuracy all of the jobs which may be open to him in a few years' time.

In the U.S.A. more and more firms are adopting the idea of an 'executive inventory'—which means that they make a systematic appraisal of all executive staff at regular intervals. Some British firms have also

Continued on page 98



Chemical milling was first developed by the aircraft industry. Now other industries are realizing its advantages with difficult metals and shapes

Machining Metals

CHEMICAL milling does what it says: fairly large amounts of metal are removed from the surface areas of workpieces by dissolving them away.

Thus any metal can be 'machined' simply by immersing it in a tank of acid or alkali. This is an attractive proposition for the metal-working firm—it dispenses with the need for an expensive milling machine, for setting up, and for changing cutting tools.

At present only the light alloys are chemically milled on a large scale. But recent experiments, especially in the United States, suggest that chemical milling has wider applications. These include:

- 1—The 'machining' of hard steels and titanium;
- 2—The forming of special metals (like those used in electronics) whose electrical properties are often affected by machining operations and the associated clamping.

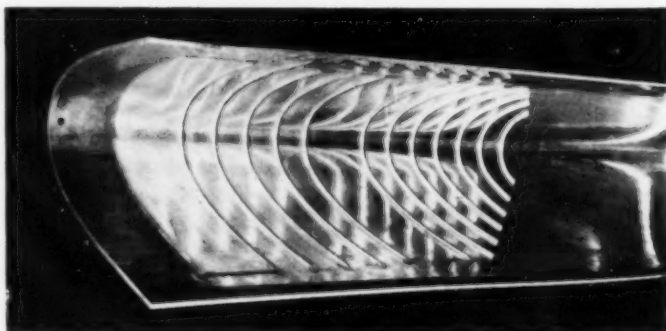
As a production technique, chemical milling is only a few years old. It was pioneered in this country by Vickers-Armstrongs (Aircraft) Ltd.

at their Swindon works, where it has been part of the production line for about two years.

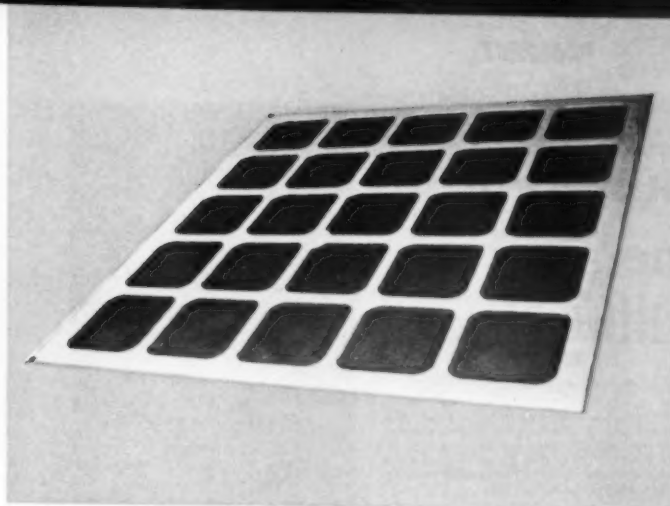
Chemical milling has seven main advantages over conventional methods:

- 1—It removes metal from inaccessible parts of workpieces that are already shaped. This amounts to three-dimensional machining.
- 2—It handles many parts simultaneously.
- 3—It cuts hard metals without setting up stresses and without 'work-hardening.'
- 4—It does not need skilled operators.
- 5—It can operate on material too thin or intricate to hold.
- 6—The plant is not expensive, compared with copy milling machines. Much of it can often be built in the company's own workshops. Against these must be set six disadvantages:
- 7—Cutting is uniform and simultaneous over the whole area.
- 1—Several steps are involved in preparing surfaces.
- 2—Techniques differ widely from

Machine-milling the insides of shapes like these would have been difficult or impossible. But chemical milling does it. So forming can be done first.



Vickers-Armstrongs
achieve savings
up to 81 per cent in
milling panels
like these by the
chemical process.



Without Tools

by William Guthrie

- conventional engineering; prejudices have to be broken down.
- 3—Accuracy varies inversely with the depth of cut. Maximum accuracy is two 'thou' for very shallow cuts. Maximum cut, holding, normal tolerances is $\frac{1}{2}$ in.
 - 4—Finished surfaces are slightly pitted.
 - 5—Surface irregularities are reproduced and to some extent exaggerated.

Economies

Vickers use chemical milling for removing metal from rudder and aileron skins and similar panels. Economies, compared with ordinary milling, are impressive. Rudder skins are done in 19.5 per cent of the time; aileron skins in 25.3 per cent; and tailplane skins in 32 per cent.

The Process

The basic process is identical for all metals. These are the main operations:

- ▶The parts of the work that are not to be milled are protected with an inert material.

▶The work is immersed in a tank of strong acid or alkali (according to the metal to be milled) for a period which can be pre-determined exactly.

▶It is then removed from the tank. The etchant is immediately neutralized and the work is cleaned.

The procedure at Vickers is shown on page 62. Rate of cutting is one 'thou' per minute (or 60 'thou' per hour) using a fresh caustic soda solution. When the solution has absorbed a large amount of aluminium it becomes 'tired' and the rate of cut is slowed down. So before a job is put into the tank, a test is made by immersing a piece of scrap for a few minutes, and then measuring the amount of cut with a hand micrometer. In this way the 'rate of cut' of the solution can be determined at any time.

The Equipment

Vickers built most of the equipment themselves. Five of the six tanks are of mild steel, welded in the Vickers workshops. The sixth—the nitric acid bath—is made of stainless steel, also by Vickers.

Toxic fumes are collected at the edge of each bath and blown by a fan along ducts to atmosphere. 'Spent' caustic soda is reclaimed in another tank and used over and over again.

Templates are normally of alloy sheet (sometimes of epoxy resin or steel). The cut-outs have to allow for the fact that chemical milling cuts in all directions at once, at exactly the same rate; therefore they are smaller than the required area to be milled by an amount equal to its depth.

Break-even Point

According to Vickers, the point at which chemical milling becomes cheaper than conventional machining is where the milled area exceeds 60 sq. in. The maximum size of the parts that can be treated is limited only by the size of the tank, which in their case is 12ft. long. The smallest part treated is an access panel about 8in. square.

Even with the largest parts, several can be treated at one time by mounting them on simple jigs. Hydrogen, evolved during the process, agitates

Four Steps in Chemical Milling

1—At Vickers-Armstrongs, panels are degreased and sprayed with special lacquer which can be peeled off in one piece. Over the panel is placed a template with cut-outs corresponding to the areas to be milled.



2—The operator lightly traces these outlines with a modelling knife and peels lacquer from all the areas that are not to be milled.

the solution and ensures that every surface receives the same treatment.

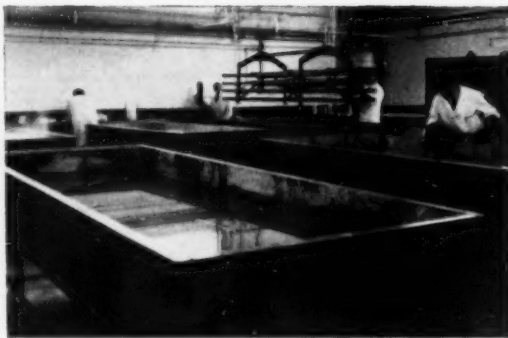
Special Advantages

In considering the break-even point, account should be taken of the special advantages of chemical milling which may save time at other stages or result in a better product.

For instance, sharply curved panels can be chemically-milled on their inner surfaces just as easily as on their outer surfaces. As a result, forming can be done before milling instead of after, making the operation quicker and easier. To this extent, the design office are freed from a few restrictions and can produce better or cheaper designs without being told by the manufacturing shop that they are impossible to make.

Other advantages are that no polishing or dressing is required to remove machining marks; and that there is no risk of distortion, even of the thinnest materials.

3—Several coats of special paint are sprayed over the entire panel, and stoved in an oven. Back on the bench, the parts to be milled are bared by pulling off the remaining skin of lacquer, bringing all the paint with it.



4—Panel is immersed in a caustic soda tank (in background), and left for a period depending on the depth of cut required. Use of jigs (background and right) enables many parts to be milled simultaneously. Other tanks are used for cleaning panels after treatment and for stripping the special paint.

Future Developments

Vickers and others are investigating the possibility of using chemical contouring for removing very large amounts of hard steel from cast blocks prior to finishing. This operation is now carried out mechanically. The high stresses set up make the life of cutters extremely short and time is wasted on changing them.

In the U.S.A., steel boot lids for quality cars have been made experimentally by the process. Normally these are made from light pressings

and strengthened by spot-welded webs and ribs. The new way is to use heavier pressings and lighten the lid by milling the steel away in places, by chemical means. The question is largely one of balancing the higher cost of material against the reduction in skilled labour.

Chemical milling may help the

electronics industry to meet the need for more efficient transformers and other components. The grain structure of special metals used for these is often seriously disturbed in machining. At least one company in this country is investigating the production of shapes milled from these metals by the chemical process. *END*

BUSINESS BOOKSHELF

EFFECTING CHANGE IN LARGE ORGANIZATIONS by E. Ginzberg and E. W. Reilly (Oxford University Press) 28s. net, 29s. post paid. Here is an important and in many ways very useful book spoilt by semi-psychological jargon. It makes "extensive use of case materials from corporate and governmental experience," but unfortunately the cases do not show through the text, which is written in general terms. Hence the jargon makes it heavy reading. Here is an example: "One of the important gains that might accrue from studies of societal change is a sharper perception of the role that values play in the process." One does not emerge from this with "a sharper perception."

JOHN HEATHCOAT AND HIS HERITAGE by W. Gore Allen (Christopher Johnson Publishers) 18s. net, 19s. post paid. A very readable account of the establishment and growth of John Heathcoat and Co. of Tiverton, Devon. It is particularly inspiring in its description of the way in which the firm's ideas about co-partnership were developed and put into practice. The mystery of this book is why the present Chancellor of the Exchequer, Mr. Heathcoat Amory, who features considerably in the latter pages, has not been a more open advocate of co-partnership.

YOUR BUSINESS: The Right Way To Run It by A. G. Elliot (Elliot Right Way Books, Kingswood Building, Kingswood, Surrey) 7s. 6d. net, 8s. 3d. post paid. Very elementary advice, "based on 30 years' experience." Here are two samples of the advice given: "For almost any business an accountant is essential;" and again, "It is wise to have a bank account."

BRITAIN — AN OFFICIAL HANDBOOK — 1958 (H.M. Stationery Office) 21s. net, 22s. 9d. post paid. An official publication, for reference purposes, describing in over 500 pages the Government, industry, social and cultural aspects of British life.

PRODUCTIVITY AND SOCIAL ORGANIZATION - THE AHMEDABAD EXPERIMENT by A. K. Rice (Tavistock Publications) 35s. net, 37s. post paid. Describes in detail both the shop-floor and the management changes made in an Indian textile mill, during a three-year reorganization. The workers in the mill were divided into groups whose

functions were inter-dependent and whose combined efforts were such as to complete a task, thus giving the satisfaction of completion, and making possible a maximum of self-government within the group.

THE DIRECTORY OF OPPORTUNITIES FOR GRADUATES 1958 (Cornmarket Press) 8s. 6d. net, 9s. 6d. post paid. Though largely consisting of classified statements by companies as to their opportunities of careers for graduates, this book also now contains introductory articles of guidance to the graduate beginner. Three of these articles are by recent graduates describing what it was like during their first few years in industry. The book is distributed free to 20,000 students approaching graduation.

INTRODUCTION TO MECHANIZED ACCOUNTS by A. F. Linton (Pitman) 16s. net, 17s. post paid. Fourth edition of a large-page manual which assumes a knowledge of book-keeping and builds on to it knowledge of mechanized systems.

NEW WAYS IN MANAGEMENT TRAINING by Cyril Sofer and Geoffrey Hutton (Tavistock Publications) 15s. net, 16s. post paid. A most illuminating study made by the authors of the work of the Department of Management and Production Engineering at Acton Technical College. They investigated the

reasons why students attended courses in the department, the nature of subjects taught and the extent to which these reflected the real needs of industry and commerce in the district. Considerable reorganization of the department resulted. But this could not, of course, overcome the usual difficulties arising from the fact that teachers of management subjects at technical colleges are poorly paid compared to experienced and able managers in industry.

CAREERS ENCYCLOPEDIA edited by C. H. Chaffe and P. J. Edmonds (Cleaver-Hume Press) 15s. net, 16s. 9d. post paid. Second edition of a book describing 240 types of career, under such standard headings as What the Work Is, How You Start, Examinations, How to Train, The Cost, Prospects and Salaries, Where to Write, and Books to Consult.

HOTELS AND RESTAURANTS IN GREAT BRITAIN AND IRELAND 1958 (British Hotels and Restaurants Association) 3s. 6d. net, 4s. 6d. post paid. Thirtieth edition of a standard catalogue, town by town.

FIRE EXTINGUISHMENT AND FIRE ALARM SYSTEMS by J. J. Williamson and P. A. F. Buckle (Pitman) 30s. net, 31s. post paid. Covers in considerable detail the equipment and systems available, and how they function.

GHANA IS BORN (Newman Neame) 18s. net, 19s. post paid. A handsomely-produced and well-illustrated record of the history of Ghana and the actual ceremonies and celebrations of independence.

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Two-day Course Briefs Top Men on Work Study

by Philip Marchand

**From tailor-made
discussions and
demonstrations they
learn how they can
employ specialists
profitably**

THE lecturer makes the point that it is never wise to rush naïvely into mechanization and permits himself an anecdote: "Last week I was talking to the managing director of a firm who made mechanical handling equipment, and I told him, 'We try to teach people not to use your equipment'." A head peers round the door to hint that the lecturer is overrunning his time and the introductory seminar of a work study course for directors and senior executives comes to an end.

This two-day course is run by the Anne Shaw Organization Ltd. three times a year. It aims to give senior management an intensive briefing on work study so that when they can return to their desks after 48 hours they have begun to appreciate what young Jones is up to in the methods office or to consider the advantages of recruiting a work study team.

During the conference season the Anne Shaw Organization turn their headquarters at Beach House, Heald Green, Cheshire, into a school. The students stay at a nearby hotel.

For two days they find themselves on the receiving end of a series of lectures, and their job is to make notes on the copious quantities of paper provided. The lectures are fully documented by films, slides,



Executives attending the course get practical demonstrations of work study techniques, as well as lectures and discussions



models, and of course charts—the stock-in-trade of the work study man. Stereoscopic viewers that give a 3-D picture are handed round at one point to impress upon the executive 'students' how the movements of an operation can be simplified.

The number of students on each course is kept small—usually to seven or eight. The aim is informality, so that students are free to ask the lecturer to elaborate—or justify—what he has said. In this way it is possible to handle more questions that deal with the executives' particular problems. This is not an off-the-peg course where the executives pick up what they can, but is tailor-made to suit them.

The introductory session over, the students meet some of the organization's consultants over coffee, button-hole the lecturer to ask further questions, and then go back to hear two more lectures of an hour each. By the end of the course, they will have attended about 12 hours of seminar.

Obviously, a two-day course on work study has to move at a relentless pace, and continuously taking in new ideas demands firm concentration. So the course has been carefully planned with breaks in the programme: an hour's lecture in the morning is followed by coffee; two hours more

in seminar are followed by a dry Martini and an excellent lunch at Manchester's nearby Ringway airport; and successive lectures are even held in different rooms to separate seat and student for a short time. At the end of each day pencils are laid down thankfully but with a good deal achieved.

The subject matter of the course falls into five sections:

- 1—Defining terms and the scope of work study.
- 2—Explaining the tools of method study.
- 3—Explaining what method study can achieve.
- 4—Time study.
- 5—Subjects of special interest to each executive.

In the course (as in the Organization itself) the emphasis is on method study. To clear up any confusion over the many names that have been given to various aspects of work study, a short historical sketch is introduced. If the executive pencil stops writing for a moment when the academic word 'history' is mentioned, it soon resumes its trek across the paper as the significance of the résumé jabs home.

In the Organization's opinion, far too much emphasis has been placed in the past on timing work and fixing

standards. People have seized on the idea that time studies give a useful guide when costing work; and that by dangling the carrot of incentive schemes increased productivity invariably results.

In fact, it is pointed out to students, work measurement is not the aspect of work study that brings increased productivity. Its accuracy is only approximate and so it can serve as only a rudimentary check.

On the other hand, method study, by examining how work is done and how it could be done better, can make as large a contribution to increasing productivity as automation. This does not mean that the stop-watch has to be put in cotton wool, but that method study should be done first.

If the students are not quite convinced by this 'message,' they become completely sold when the Organization begins to demonstrate the tools that they, the Anne Shaw consultants, find most useful for method study. These include process charts, string diagrams, memomotion, and even techniques with such disarming names as Therblig charts and chronocyclegraphs.

What the students admire in the consultant's 'workshop' is the systematic approach to research, whether it is concerned with factory or

Continued on page 104

How to Put Punch Into Sales Letters

by H. Dennett

IN common with every other form of publicity, the successful sales letter springs from an *idea*. Once let loose in fertile soil, it grows and develops until an entire scheme becomes evident. After that, the sales letter almost (but not quite) writes itself.

The basic idea may be either verbal or mechanical: just a happy, picturesque phrase, or an unusual physical form for the letter to take. Here is an example of each:

▶ A firm of builders wanted to write to prospective customers situated within easy reach of their yard. First the idea—the delays experienced in getting men and materials from a distant works to the site, the customer's exasperation in vainly trying to contact the builder's boss in a crisis. From this was born the opening sentence of the letter: "Do you suffer from remote control?"

Once this start had been made, it was easy to bring home the advantages of using a local firm of builders where the boss is always on tap. Anyway, the letter was very successful.

▶ The second problem was to catch the attention of a group of people notoriously hard-boiled as far as advertising appeals are concerned:

sales managers. Here an unusual physical presentation was the central idea. The letter started with a broken sentence, and was typed on a continuation sheet in place of the normal letter-heading.

The device certainly attracted attention; a number of firms rang up asking what had happened to the first page. It also brought in business.

It is important that *every* sales letter, whether spectacular or not, should start with an *idea*. Only when that idea is crystal-clear in the mind should it be committed to writing.

Are there any other rules which the copywriter may follow in order to make his letter tick? The trouble is

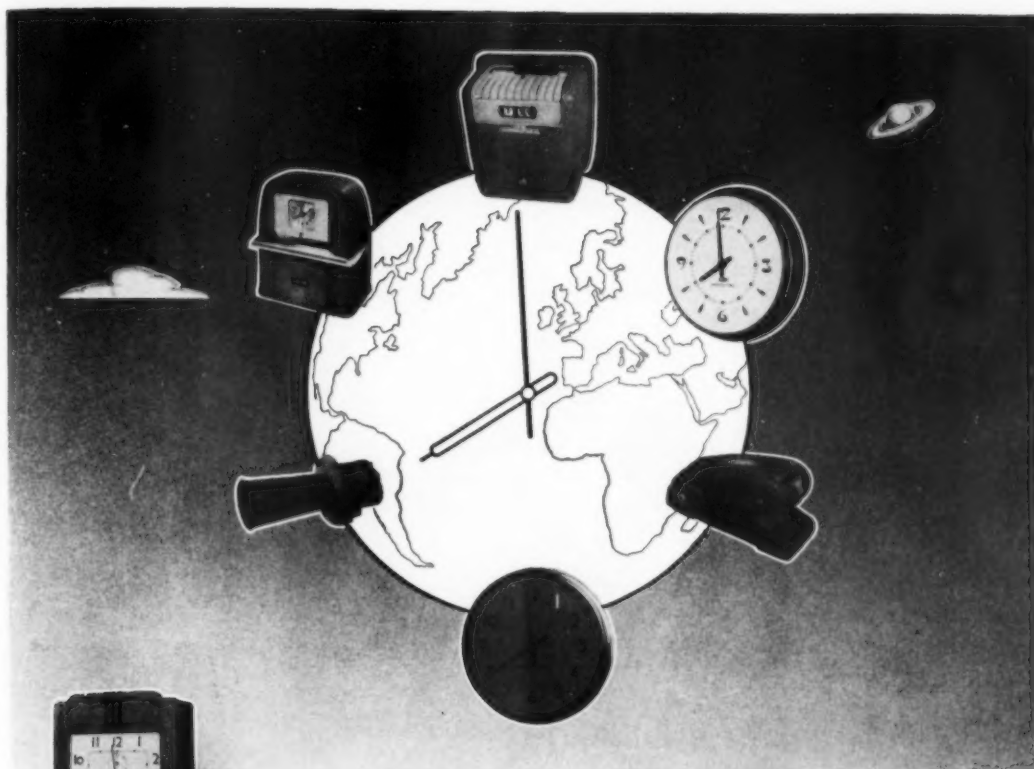
that there are ~~too~~ many; some of them seemingly devised to save the trouble of preliminary thinking at all.

It is of course, perfectly true that the opening of a letter should arouse attention, the centre should carry the sales message, and the close stimulate action. But generalizations like these are cold comfort to the advertiser (or his copywriter) who sits with a piece of blank paper before him, and not an idea in his head.

So the problem is one of flushing the initial idea. Here a variation of 'brain-storming' may be used to advantage. It is simply to write down (with the help of others if need be) *every* idea, no matter how fantastic, that comes into the mind about the sales problem and the product in question.

Out of this medley of notions there may well appear a practical sugges-

General advice is cold comfort to the man with a blank sheet of paper in front of him. Here are some specific ideas for developing forceful direct mail shots



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The secret? A Top Management aware that, if Britain is to hold her industrial place in the world, it is as essential to modernise administrative operations as it is production lines.



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tion with which to start the sales letter.

Suppose the purpose of the letter is to sell expensive garden furniture and equipment. Perhaps a couple of clichés occur to the writer: "Come into the garden, Maud", and "In the spring a young man's fancy . . .". Both are by Tennyson. So here is a possible opening:

Why was Tennyson's Maud invited into the garden? Surely to meet Tennyson's young man whose fancy lightly turned to thoughts of . . . well, perhaps a mild flirtation in the luxury of a Sunbask swing chair.

Not very bright? It's nonsense anyway, for the two poems are quite unconnected. But you have got the thoughts of the reader where you want them—in his garden. Now it's up to you to get your product there too. And if you are still sceptical, compare it with this sort of thing:

We have much pleasure in introducing to your notice our famous range of Sunbask Garden Swing Chairs . . .

Ask yourself which is more likely to encourage the prospect to read on.

So much for a letter in which the initial idea is expressed verbally. What about ideas which lead to unusual physical presentations? One way to find these is to check through the advertising columns of a dozen or so fat magazines for a couple of weeks or so. You are almost certain to find some examples of unusual or even eccentric layouts which will start you thinking. Yes, it is possible to get layout ideas for sales letters from press advertisements, or from almost any other kind of advertisement for that matter.

A word of warning. There is no profit in using the unusual for its own sake; the sole purpose of a gimmick is to persuade people to *read on*. Letters printed upside down or in the form of a wheel (a 'circular letter' one was called) annoy the recipient rather than intrigue him.

A flying start

An average sales letter contains 200-300 words, but the secret of success is generally in the first dozen. If these do not arouse the reader's immediate interest, all is lost. However good the body of the letter, it

will not tick for the simple reason that it will not be read.

So here are a few examples of this all-important lead-in: first another of the useful 'quotation' type:

Remember Alice of Wonderland fame, and how she criticized her sister's book because there were no pictures in it?

This opening could be used to introduce a score of different products. Many other suitable lead-ins are to be found in Lewis Carroll's delightful nonsense.

Then there is the 'surprise statement' opening, also designed to catch the fleeting glance of the casual reader and persuade him to go on. At first sight it seems to decry the product, but in fact the statement is strictly true:

Our hats are just blown together . . .
Our tweed jackets are a rough looking lot . . .

The 'demonstration' opening has many uses:

If you try to pull this cutting of material in halves, you will probably succeed, though you may hurt your fingers in the process . . .

A well-handled antithesis may be used in this way:

A man wearing clothes *different* from those of other men feels like suicide; a woman seeing another woman wearing the *same* hat feels like murder.

Here are further brief examples of other types of openings which have been used successfully:

Illustration

Remember the old bull-nosed Morris, a fine job in its day. But if you drove up in one to see an important client, there would be smiles (lead on to new model of product).

Imagination

Does King Coal still lord it over your house? Are you his slave each morning, ash scraping, clinker-clearing? (Household equipment.)

Paradox

Silk stockings were invented in the 16th century, but not until the present generation were they discovered.

Drama

How were you to know? You were cruising modestly along . . . and the child appeared from nowhere. Your foot smashes automatically on the brake pedal, and you cling desperately to the wheel for life—or death! (Motor components or insurance.)

Though all this stress has been placed upon preliminary thinking and starting the letter off, it must not be thought that anybody can dash off

the rest. Far from it. Here are two general pointers:

1—Write in a *conversational* manner, as though you were talking to a living individual.

2—Write to your reader, about your reader and about his needs first and last. Don't talk about yourself, or your factory, even if it is wonderful—the customer couldn't care less. And talk about your product only as it helps and serves him.

To illustrate these points here is a letter addressed to factory managers to persuade them to have a system of regular inspection of their entire electrical installations:

It is one of those things that nobody bothers about . . . until something goes wrong. Then everybody bothers at once.

Only a fault in a slender wire, but it causes dislocation throughout your production line—maybe even personal injury.

But a periodical test by an expert would have detected the frayed insulation, the loose contact, the corroded lead—and you would have been saved the costly breakdown.

Simply initial the enclosed card, and your safety-first service starts right away.

Only the bones of the letter are here. It could be expanded with advantage. But the essential point to note is that the advertiser says nothing about his firm except by implication—it is all about the customer's needs.

How should a sales letter end? Clearly with a call to action of some sort. This problem, however, is more mechanical than literary, and consists of devising the most simple means of securing a reply.

A note on the back of the same sheet of letter-heading has advantages over the separate reply-card, and is not used as widely as it might be.

The whole matter of producing a sales letter that is likely to tick may be reduced to a variant—or rather a reversal—of Edison's famous formula: 80 per cent inspiration, spread equally over the basic idea and the phrasing of the opening sentence, and 20 per cent perspiration in seeing that the rest of the letter is put into decent English.

END

MANAGEMENT AT WORK

IDEAS AND ACTIONS OF PROGRESSIVE FIRMS

This store lets shop space to manufacturers

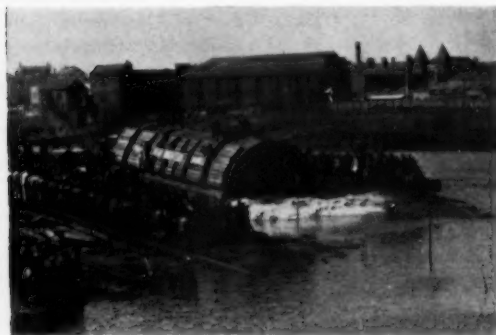
NEW APPROACH TO RETAILING has been evolved by **McEwan's Utility House Ltd.**, an Edinburgh furnishing store. An entire floor of 17,000 sq. ft. has been allocated to a group of 11 manufacturers. Each exhibits whatever products it wishes in a 'stand'; the only limitation is that each display must merge with the next to produce an exhibition lay-out.

As some of the firms are competitors they have taken a good deal of trouble to present their products with maximum appeal, as the stands have to do the selling. **McEwan's** provide staff to deal with the mechanics of the sale after customer-selection.

Both store and manufacturers benefit from this arrangement.

Sea travel solved this transport problem

HEAT EXCHANGERS for the nuclear power station at Bradwell, Essex, were made by **Head Wrightson and Co. Ltd.**, at Thornaby-on-Tees. Transporting them created a problem; each is over 90ft. long, weighs 200



tons, and is big enough to house eight double-decker buses. So the company sealed their ends, bolted on timber fenders, launched them down a slipway and towed them down the coast to Bradwell.

At Bradwell a concrete slipway had been built. A

low loader was run down the slipway and exchanger vessels were floated above the loader, so that when the tide fell they rested on the vehicle, to be subsequently hauled to the site by powerful tractors.

Indexed conveyor drops work in their lap

TRAYS of parts needed for assembly at the Flint, Michigan plant of **A.C. Spark Plug Co.** are sent to one of seven production areas by setting a dial on an indexing overhead conveyor.

When trays arrive in the designated area, they are automatically shunted off the main feed conveyor into a storage line. There a number of air-lift stations serve individual operators. They lower a set of trays to the exact place where parts are required when the operator presses an air valve.

Adjustments on the valve enable the carrier to be raised or lowered, a few inches at a time, thereby always keeping a full tray at workbench level.

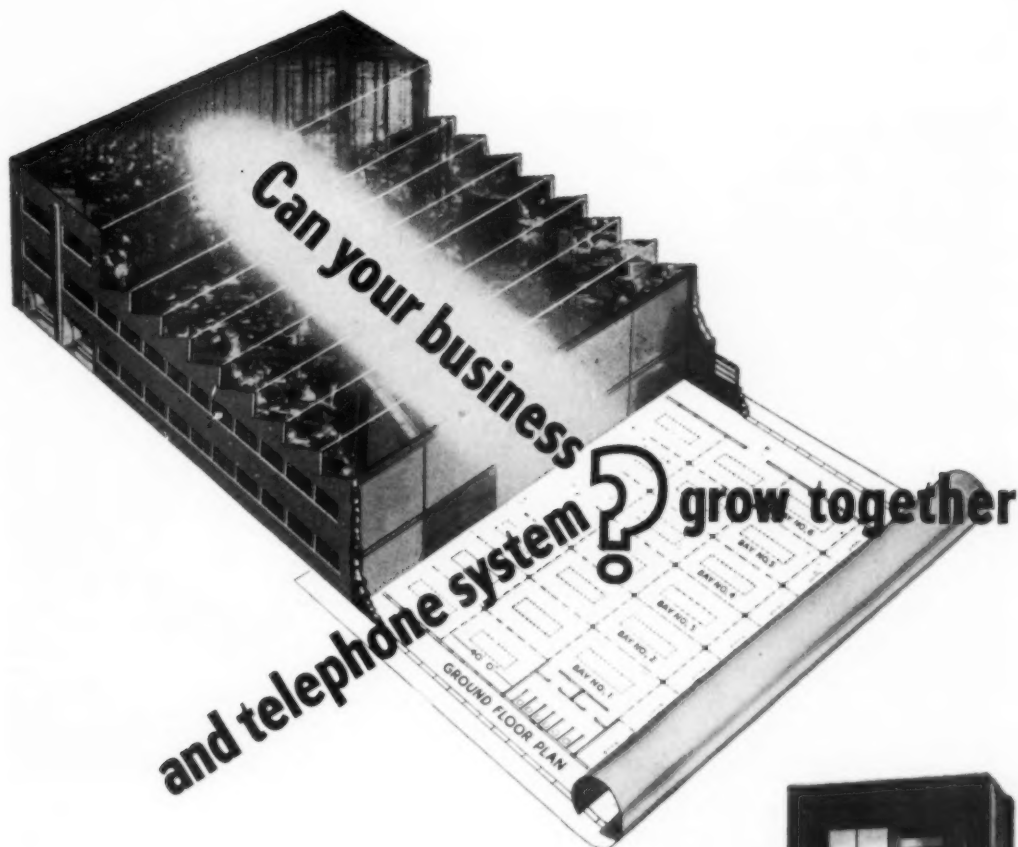
When all the trays on one carrier have been emptied, a switch is set to 'empty'; the air-lift raises the carrier and routes it back to the starting point for re-loading. Meanwhile, a further set of trays is selected from the storage rail and lowered.

Previously parts were supplied in bins which took up valuable floor space and meant operators had to keep turning round for fresh supplies. New system has cut down waiting time and reduced labour costs considerably through faster working.

How good accounting raised productivity

IN TWO YEARS **Quickfit and Quartz Ltd.**, of Stone (Staffs), manufacturers of interchangeable laboratory glassware, have raised productivity by 15-20 per cent. This is the result of adopting up-to-date statistical methods of controlling production, raw material usage, direct labour and overhead expenses.

First step was to introduce production analysis. This gives management a *weekly record* of production achieved and a complete analysis of lost time and allow-



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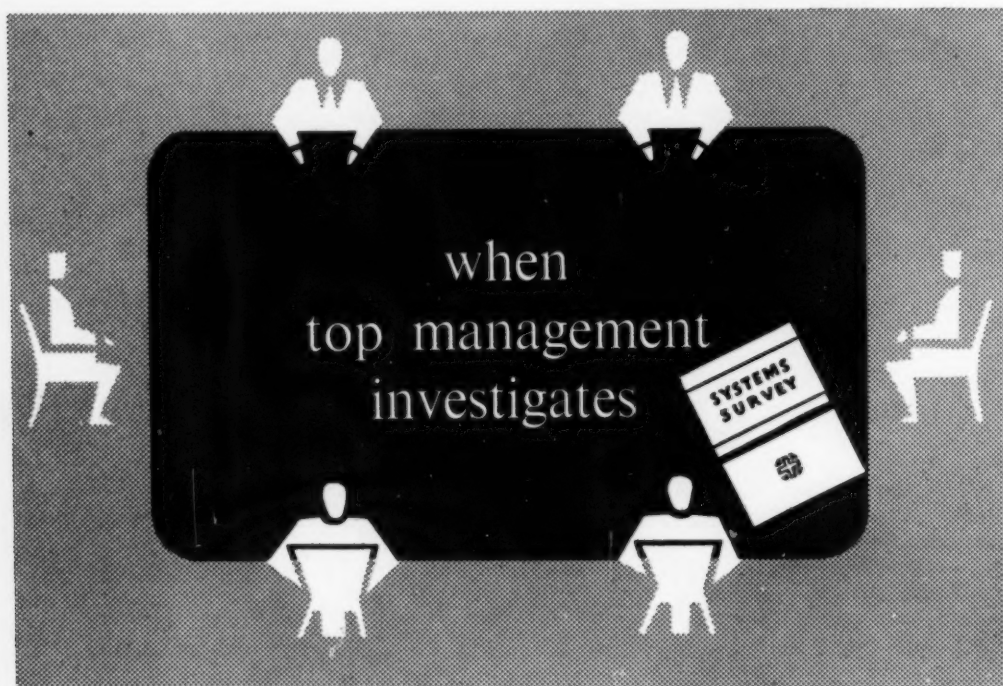
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the volume of paper work involved in its organization the question of possible economies in time and money becomes paramount. The problem of how to set about such a task is one for the specialist.

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ances. Then comparison with predetermined standards gives piece work and section efficiency.

Every Tuesday production analysis sheets are placed on the works director's desk. He confers with the production manager, the works accountant and section foremen. Variations from targets are discussed and remedies sought.

Next phase was to introduce a method of checking that raw material issues conform to the weight and quantity laid down in material specifications. This is done by pre-pricing all individual material requisitions at standard rates and evaluating actual issues. Thus daily—even hourly—control has been established.

A third control was set up for *indirect* expenses. This is based on a sales production programme. Expense targets for the production departments as well as the services departments such as tool-room, maintenance, stores, inspection, administration, etc., are agreed with the various foremen and departmental heads.

The company say that they gain these advantages from cost control:

- 1—Sales forecast figures set a target for production for the year.
- 2—Standards provide an effective means of measuring the performance.
- 3—Weekly production meetings control day-to-day activities on the shop floor.
- 4—The monthly accounts show variations from the standards, explain differences between planned and actual profit.

How to keep salesmen on the ball

A LEAGUE TABLE "to foster keenness in the outside sales staff" has been devised by the sales manager of the Private Telephones Division of **Siemens Edison Swan Ltd.**

In future their salesmen will be jostling for position in the league each quarter as the results of their sales are made known. Climbing to the top of the table will depend not on grossing more sales than the next man, but on banging home a higher percentage increase.

Each quarter the salesman with the highest percentage increase will have his name inscribed on a special board in the general sales office in London. He will also be personally congratulated by a director of the company.

Multi-storage racking solved storage problem

A DECISION to build a new plant created a storage problem for the **Talbot Stead Tube Co. Ltd.** The company, who manufacture stainless steel tubes, needed the land where the tube storage area was located for a

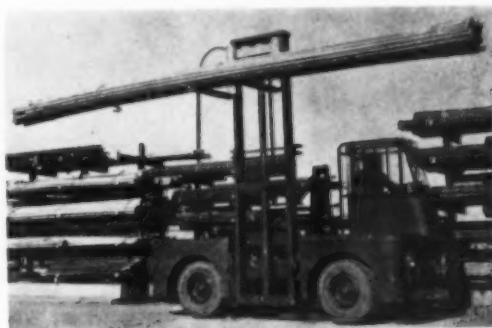
JULY, 1958

MANAGEMENT AT WORK

building site. Further, they had to allow for increased output of tubes in future.

At that time the 'hollows' were stored in bundles (usually 2ft. high) on unmade ground and separated by vertical tubes. A plot of over four acres accommodated about 600 tons.

By jettisoning the vertical tubes between bundles and



adopting steel racking (a series of linked five-bar crosses, providing five storeys or shelves on each side) Talbot Stead now find that they can stack over 1,000 tons of hollows in about two and a half acres of ground.

Storing tubes in this way has been made possible by using an *Irlion* side-operating fork lift carrier which can drive down narrow alleys and lift bundles from the shelves without having to turn to face the racking. The carrier takes no more than a minute and a quarter to load up with bundles, so transport to and from the storage depot has been greatly speeded up.

How to get the most from exhibition stands

BEFORE the opening of their annual Hardware Show, the **Canadian Retail Hardware Association** invited key personnel from exhibiting firms to a lecture given by a business consultant. Commenting that exhibitions must be looked upon as show business, the consultant made the following points.

- ▶Keep the stand tidy. No staff hats and coats in sight.
- ▶Only provide enough chairs for a few customers. See that no staff use them.
- ▶Avoid staff smoking on the stand.
- ▶Let promotion material be readily available, but don't throw it around like confetti.
- ▶Where possible, ask callers to fill in an enquiry form and post the material to them. Later such enquiries can be followed up.
- ▶Make arrangements for wash and brush-up facilities.

Their Small Wallboard Controls 400 Stock Items

by Peter Lewis

Charting system gives management up-to-the-minute information—without extra paperwork

VIEW-MASTER (England) Ltd. have found an efficient method of checking their stock position.

The company are distributors of stereoscopic viewing units and reels of transparent colour photographs in 3-D. These goods are manufactured in Belgium.

View-Master sell them direct to retailers in the United Kingdom—mostly chemists, photographic shops and department stores. They offer nearly 400 reel titles, and between 60 and 80 new titles are added each year.

A small sales force travels the country, following up the company's film and direct mail advertising. This produces a daily average of 150-200 orders. However, the quantities of reels ordered may vary from six to 30,000.

The number of titles offered, the importing of goods from Belgium, and the wide variations in daily demand all make it essential for the management to have up-to-date information on stocks. By using a *Plan-O-Matic* visual control board they ensure that this information is readily available.

Studded with figures, the board at first sight appears complex. In fact it is very simple to read.

The board is 42in. by 25in., and can be hung on a wall or placed flat on a table. It consists of horizontal rails on to which are slid register case units—16 to each rail. A case unit holds 16 revolving discs numbered on the circumference from 0 to 9, though only one number is seen at a time. The case unit operates on the same principle as an adjustable date-stamp, the required digits being set with a plastic prod that fits into slots in the disc.

The stock of each reel title and of other items that the company sell is indicated by a set of four figures. With more than 500 sets, the board has sufficient capacity at present to register a further 100 items.

The procedure for operating the board is simple. When an order for reels reaches the office it goes immediately to the board clerk; he deducts the quantities ordered from the stock figures on the board. Then the order is invoiced and an invoice/dispatch note goes to the warehouse.

This system makes it unnecessary for the warehouse clerk to report on his stocks, and the checking of stocks involves no paperwork at head office. The clerk may make as many as 3,000 movements a day on the board, yet he still has time for other work.

At any time of the day the management can find out from the board what stocks they hold.

An extra disc beside each set of numbers shows a yellow signal when stocks of particular titles are running low, and a red signal when they are exhausted. This warning device is particularly valuable; a few days before taking delivery of the consignment of reels that is flown twice a month from Brussels, the management can note which lines are running low and ask for these to be made up.

The managing director, H. K. Paul, uses a small specially constructed board for checking on the firm's four bank accounts. By recording on this all monies that are paid in or out, he keeps a continuous check on his cash position. He also uses the board for the daily control of his company's turnover.

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A fast-growing business meant they had to get more work from the office. They couldn't afford expensive equipment, so enthusiasm and good ideas were used instead

How a Small Firm Streamlined Office Methods

by Martin Bookham

THE small firm's office faces this dilemma: the range of its activities can be every bit as varied as that of a large concern, but the total volume handled will rarely justify acquiring expensive machinery.

A. and W. Evans Ltd., Leicester, have resolved this dilemma rather more successfully than most. They are an old-established family firm of provender millers and corn and seed merchants, with a main mill at Leicester, and a subsidiary mill and depot at Kettering. In addition, they have five retail shops in Leicester and Kettering, selling a number of agricultural, gardening and ironmongery lines in addition to their own products.

Thus, although they employ only just over 100 people, Evans have to account for purchases of supplies for both mills and shops, retail and wholesale transactions, hire purchase and credit sales from the shops, and inter-branch transactions, in addition to the routine tasks of payroll, costings, etc.

In the past seven years their turnover has increased by 64 per cent. Three of the five shops were acquired during that period. Nevertheless the number of people employed on the office side (including executives) has gone up only from 18 to 22.

How have they done it? The main factor has undoubtedly been enthusiasm for office efficiency on the part of the managing director and the company secretary. Both believe in attending Business Efficiency Exhibitions whenever possible and in reading up on office equipment and methods.

"If you're going in for a new system," says the managing director, "you've got to find out all about it for yourself." The rider is that, once you've found out, you are *actively* interested in it, and don't regard expenditure on the office as just a luxury.

Here are some of the main ideas which have helped Evans solve their office headaches:

The sales ledger has been modernized. First of all, automatic (but relatively inexpensive) book-keeping machines with abbreviated key-boards were brought in; they speeded up postings considerably. Now no-carbon-required paper has been introduced for ledger cards and statement sheets, and it is reckoned that at least a further 25 per cent of the posting time is being saved. As soon as supplies can be arranged, the purchase ledger will also start using this paper.

A simpler time-saver: customers' statement slips have a perforated strip running down the left-hand side. This fits round the ledger card and makes collation easier. The statement sheet is also 1/4 in. narrower than the ledger card, so that the operator can see where the last entry was made, and can align the documents accurately.

New posting trays are proving a great help. They resemble normal trays for 350 cards, with ends that

open out to form a 'V'. Between each account is a special indexing card, fitted at the top with a small spring. When the ends of the tray are opened, the springs fan out the ledger cards, so that the tops of at least 30 of them are clearly visible at a time. This cuts out the time-consuming fumbling that posting normally entails.

Purchases are analysed by a secondary application of the book-keeping machines. A ledger card is kept for each chargeable heading of the accounts, and where necessary a heading may be broken down still further (under 'Transport', for instance, there is a card for each vehicle). All expenditure is posted to one or more headings, as appropriate.

Once a month, totals from this 'bought' ledger are transferred by the company secretary to a hand-kept nominal ledger. He feels that while it is little work to transfer balances himself, doing so keeps him in close touch with what is happening in every section of the business.

Hire-purchase accounting has been streamlined by two good ideas. The first originated in a suggestion made at a monthly management committee meeting. It has helped reduce the internal costs of hire-purchase agreements.

Previously, each credit sale involved making out an order form, an invoice in triplicate and two copies of the agreement itself. The new system uses a re-designed agreement form and three carbon copies. The first of these is the duplicate agreement which the customer retains; the second and third copies act as delivery notes, one returning duly signed to the company as legal proof that the goods have been received by the customer. The original copy is used for postings instead of a sales ledger invoice. Sets of agreement forms are supplied in large tear-off blocks, and have proved cheap, fast and easy to use.

A loose-leaf ledger to house customer account cards is the second idea. The cards are fastened into the spine of the ledger by a patent process which allows them to be staggered



Cards in this posting tray fan out through interleaved spring clips. Quicker selection of account cards is saving Evans nearly 25 per cent posting time

vertically, 28 to a page. Only the bottom edge of each card (except the first) is visible.

On this edge appear the numbers 1 to 52, representing the weeks of a year. When a customer makes a payment, details are hand-posted to the relevant card. At the same time, the week numbers which that payment covers are crossed off. One glance down the page at the current week number shows at once whether or not any of the 28 accounts featured there are in arrears.

With the help of these two ideas, Evans find that only two people are needed to look after their 2,500 active hire purchase and credit sale accounts. The work includes making out the original agreements, posting payments, checking for arrears, corresponding with defaulters, taking trial balances once a month and even acting as cashiers on busy days.

Sales analysis has been simplified. The following information is needed for provender, corn and seed sales:

- total tonnage sold;
- amount sold of each commodity;
- breakdown of amounts of cash commodity sold by each rep.

Previously it was considered a two-day job to get the figures by going through a month's invoices and extending quantities on to an analysis sheet. Now each order is entered on a standard order form. Down the right-hand side, a pre-printed column lists the main lines that are handled. Against each commodity is a blank box, at the very edge of the paper. When orders have been filled and invoiced, the slips are passed to the clerk responsible for analysis. She extends the quantities and enters the amounts in the appropriate little boxes.

The order slips are filed according to the salesman whose account they concern. At the end of a month, the accumulated slips for each salesman are simply placed on a pegboard, and staggered horizontally, so that only the right-hand edge of each slip is visible—showing the quantities.

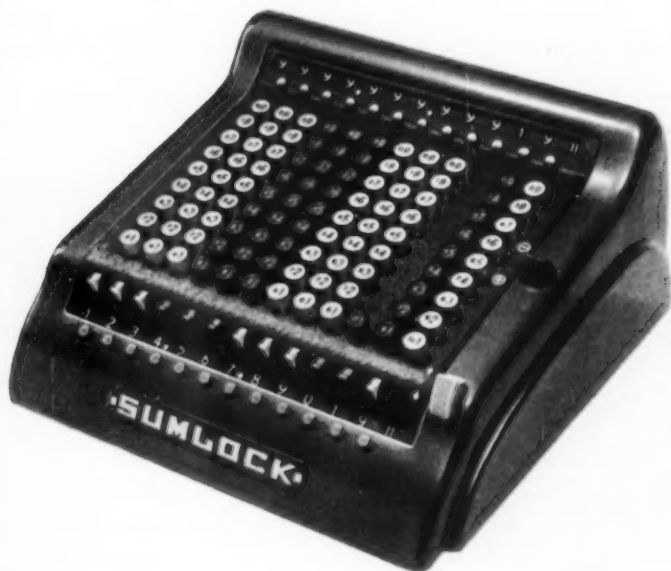
It is now a simple matter to read off horizontally the total quantity of each commodity booked by that salesman that month. From the summary sheet filled in for each salesman (a replica of the order slip but differently coloured) it is easy to

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find out total tonnage for each commodity, and to arrive at a total sales figure for the month. The whole job can be done in an afternoon.

Cheque-writing is one of the many time-consuming jobs that a small firm can rarely afford to mechanize. But Evans have arrived at a very simple solution: the National Provincial Bank issue them with specially-designed continuous cheque forms. The cheques are concertina-folded, and have carbon backing where the payee's name and the amount payable are entered. Cheques are typed on a standard typewriter against a backing sheet. (For reference purposes the cheque number is also typed in the 'payee' space.) The backing sheet can then be used for posting debits to the purchase ledger. Of course, it also eliminates filling in stubs.

Plant and machinery are itemized in a depreciation register. Every piece of equipment in the company's mills, shops and offices is listed on

large double-page folios which are kept in a loose-leaf binder. Entries go right across the two pages. The left-hand sheet shows where the equipment is located, original cost price, amount insured for and rate of depreciation. The right hand sheet shows actual depreciation year by year. When it has been filled up, a new right-hand page is inserted leaving the left-hand page intact.

The register ensures that depreciation figures are available easily and accurately, however many changes take place. When the annual accounts are prepared, 'this year' depreciation columns are simply totallied and transferred.

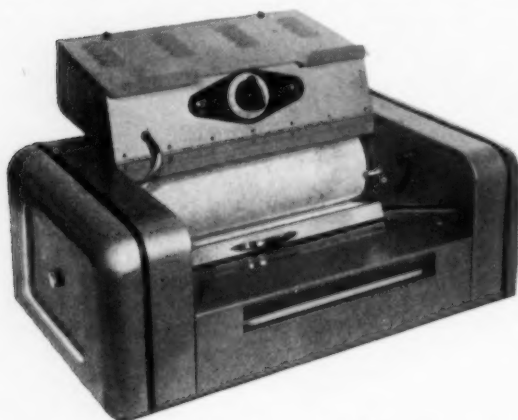
Miscellaneous equipment includes an addressing machine (used, amongst other things, for heading up statement and ledger cards, invoices etc.); a label printing machine, which is saving the firm up to 10s. a thousand labels; a three-in-one payroll system; and a key-set electric calculator.

The latter is one of the firm's most-used pieces of equipment and has

repaid its cost many times over. One clerk used to spend 2½ days a week extending and checking invoices alone. These are now done on the machine as they occur, and take up no appreciable time at all. The machine is also used for costings, checking purchases, monthly and yearly stock sheets and wages assistance. Its operator still has time to cope with the sales analysis summarizing.

Telephone economy is a subject often ignored by firms large and small. Evans were determined to do something about the size of their telephone bill, much of which was due to 'internal' calls between Leicester and Kettering ends of the business. Now they have managed to negotiate a private line agreement with the G.P.O. They pay £90 a year to rent a private Leicester-Kettering line from 3—5 p.m. every day. Only urgent calls may be made by employees outside these hours, and it is expected that considerable savings will result.

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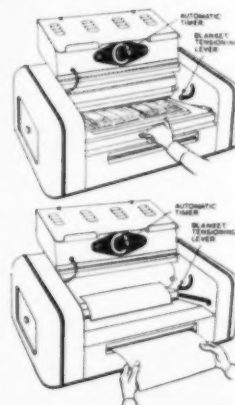
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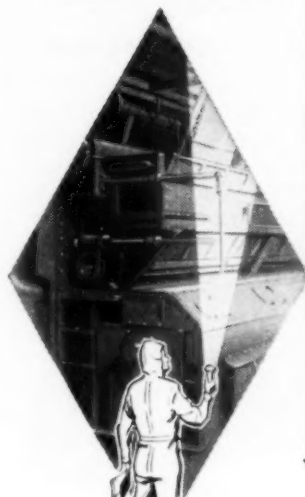
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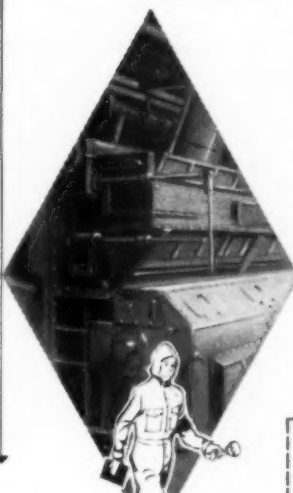
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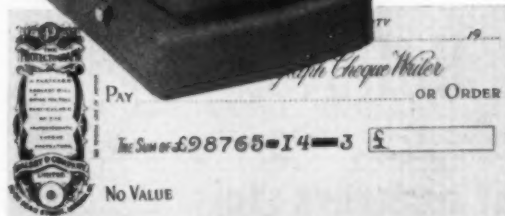
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JULY, 1958



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No matter how sharp the crease in your trousers, if you work in a shabby old office, it will let them down—or rather, let you down. Threadbare carpet, dingy walls, clumsy old desk—these will blunt that good impression you want to give your important visitors. Now a new office . . . you could really get things done in a good new office. And Catesbys Contracts could give you a very good new office, quickly and reasonably. Ring Museum 7777, or if you're abroad, send them a letter. Then, in no time at all, everything will be hard working, like you—a brilliant desk (nothing out of reach), a new carpet (softly proclaiming who's who). It will be an office planned, built, decorated and furnished to make your work more . . . worthwhile.



Interior construction and furnishing by

Catesbys

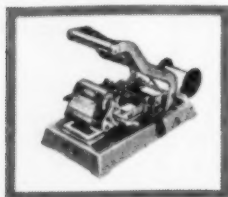
CONTRACTS

CATESBYS CONTRACTS AND EXPORT LIMITED

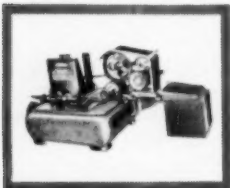
TOTTENHAM COURT ROAD, LONDON, W.1. MUSEUM 7777

The **RIGHT** machine can
save you 90% of your
addressing costs!

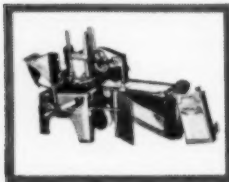
Single Print
for continuous label printing



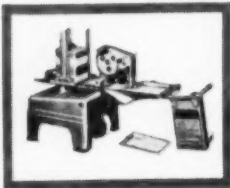
Model 65
... inexpensive rotary addressing
machine



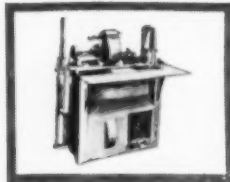
Model 135
automatically addresses envelopes
or cards at 125 per minute



Model 90
for addressing envelopes, state-
ments, labels, at 1,000 prints
per hour



Model 300
for automatic selection, is fitted
with sheet lister



But you must be sure it is the *right* machine. That is why Addressall have a full range of machines for every size of business! As your business expands, you can get a larger machine, but your stencils are exactly the same. Your nearest Addressall representative is at your service to help you select the right machine for the job.

Addressall systems are based on the fibre stencil which is light, clean, and can be typed on your own typewriter with the aid of an inexpensive attachment, providing not only an addressing unit but a recording system as well. This factor, allied with the low capital outlay required, means that the Addressall system is not only more efficient, but less expensive. We would be pleased to send you an explanatory leaflet, or arrange for an Addressall representative to call, if you write to:

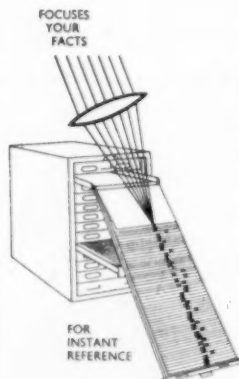
Addressall

11-13 SOUTHAMPTON ROW,
LONDON W.C.1
Telephones: WILBURN 3371-3372

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the facts...

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VISIBLE RECORDING
EQUIPMENT



Searching for facts can be so time wasting, especially when details are recorded under many different headings, but with Constructors Seldex System all the answers can be found at a glance. Constructors Seldex System is planned to ease the burden of today's business and we will be pleased to give all possible help and advice for your recording department.

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FOR FACTORY EQUIPMENT & OFFICE FURNITURE

POST COUPON TODAY to Constructors
Group, Dept. G., Tyburn Road, Birmingham 24.

Please send, without obli- Name _____
gation, details of Con-
structors Seldex Visible Firm _____
Recording Systems for
use in Dept. Address _____



CONTINUOUS STATIONERY the modern way

The typist — a vital link in the chain of production, marketing and distribution. Through her typewriter flow the Works Orders, Despatch Notes, Invoices, Purchase Orders and the many other forms essential to business. Far too often, however, her production suffers through unnecessary repetitive typing, and time wasted in the handling of carbon paper and loose forms.

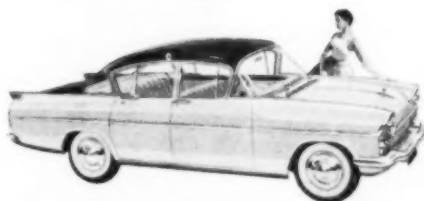
If this is your problem may we show you how the Econojet Typewriter Attachment, with Econoset Continuous Stationery, reduces unproductive operations to the barest minimum.

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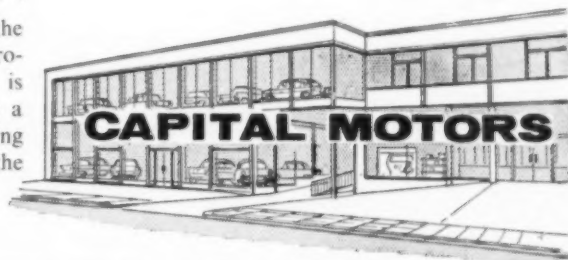
CAPITAL MOTOR CO. LTD • VAUXHALL, BEDFORD AND SCAMMELL DISTRIBUTORS

Head Office: Remington Street, City Road, LONDON, N.1

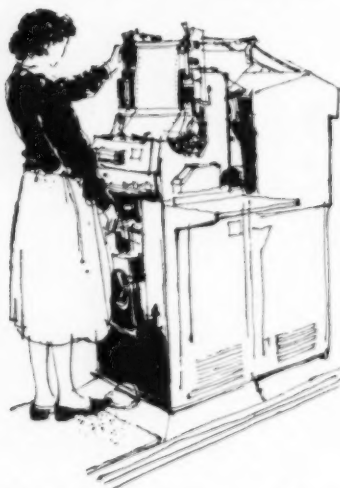
Tel. CLERkenwell 7456

Showrooms: Tottenham Lane, Hornsey, LONDON, N.8

Tel. MOUNtview 3451



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computer attracted us—
that's why we consulted
Powers-Samas"**



AND THEN . . . And then it was time to talk it over with the experts, to make a realistic assessment of the needs of the company — a medium-sized organisation, understandably interested in a computer, but with a limited budget for re-equipment. And, in fact, with needs that simply did not yet justify the installation of electronic equipment . . . But needs which could still be adequately met with Powers-Samas highly economical punched card data processing machines—the most practical and efficient accounting control for the small and medium sized business. Later, when work justifies it, Powers-Samas electronic equipment can be integrated with the existing installation.

Put your accounting problems before

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**the world's leading makers of electronic
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POWERS-SAMAS ACCOUNTING MACHINES (SALES) LIMITED,
POWERS-SAMAS HOUSE, HOLBORN BARS, LONDON, E.C.1.

OFFICE

Inexpensive office trolley

Dictating machines, adding machines, files, and other equipment can be moved easily by the use of an office trolley.

The new *Hilson* trolley is made of solid mild steel and is of welded con-



Easy to move

struction. It measures 16in. square and 25in. high, and is stove enamelled in mottled beige.

Hilson Wire Products Ltd., Shentonfield Road, Sharston, Manchester.

High-speed rotary overprinting machine

Cards, small bags, pouches, sachets, price tags and labels with or without pins or strings can be precision-overprinted at a speed of 6,000 per hour by the *Tickopres VM* rotary overprinter. Size limits are from 1½in. square to 6½in. by 5½in.

The machine prints accurately on various types of surface, such as card, paper, linen, film or metal. Driven by a 240v. A.C. motor (or alternative types to order), it leaves both the operator's hands free to feed in the work.

Printing may be done by different methods, according to the require-

ments of the job. Plates or stereotypes may be used for brand-names or trademarks, for example. For changeable items, separate type is used. This is supplied in trays and is set by being slid into a composing stick and from thence on to channels on the type drum. Lines likely to be required again in the near future can be stored in a self-locking key. Interchangeable type-drums and slugs are provided to allow constantly used material to remain permanently set up.

Dapag (1943) Ltd., Tickopres Division, 7-8 Old Bailey, London E.C.4

New safe resists all assaults

To frustrate the increasing number of cracksmen who employ explosives, the *Super Hercules* safe has been evolved. Through tests in the presence of the C.I.D. during which experts attempted to blow open the safe with gelignite, it resisted all assaults. The safe is also fire-resistant and has withstood tests at furnace heat.

Made in two sizes, it is a floor-standing safe which the makers recommend should be bolted down through holes provided for the purpose. Construction is of a single steel plate bent cold at all 12 corners, and the back is electrically welded to the body. Total body

thickness is 4in., and that of the door and lockcase is 4½in. Chambers between the outer body and lining are fitted with a moisture-generating fire-resistant substance.

A useful precaution against carelessness is afforded by the design of the lock, from which the key cannot be withdrawn until the door is properly fastened. Interior fittings comprise two cash drawers and an adjustable shelf.

Inside dimensions of the *S.H.1* are 14½in. by 14in. by 12½in.; of the *S.H.2*, 22½in. by 18in. by 16½in. Weights are approximately 5 cwt. and 8 cwt. respectively.

Thomas Withers and Sons Ltd., Sandwell Road, West Bromwich, Staffs.

Machine records and repeats phone messages

Difficulties and inaccuracies which often occur as a result of transcribing telephone messages can be avoided

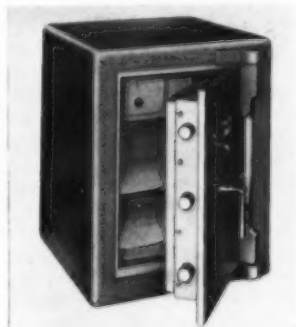


Prevents garbled messages

by using the *Dictaphone Telephone Repeater*. This new machine should be particularly useful in hotels, where messages may be given in a foreign language, or in organizations where technical details may be given over the telephone.

The device, which is an accessory for use with a *Model PT Time-Master* dictating machine, records messages direct from the telephone, and can play them back in a similar way. The unit is the same size as the dictating machine, which is stood on top of it and connected by two plugs.

Operation is by remotely controlled on-off switch or, in the case of



Safecrackers frustrated

certain types of GPO telephones, by removing the handset from the cradle. The machine can, therefore, be installed remotely from the user—in the telephone switchboard room, for example. When this is done, a buzzer is fitted to the recorder so that the operator's attention can be attracted.

At the beginning and end of each recorded conversation (i.e., when the handset is replaced) the machine automatically makes an 'end of letter' mark on the index strip. To play a message back into the phone, the operator merely moves a switch.
*Dictaphone Company Ltd.,
17-19 Stratford Place, London W.1*

Extra register speeds adding and listing

The accumulating register which is a feature of the *Addo-X 500* sterling adding-listing machine helps speed up work and reduce the incidence of error by eliminating re-setting. This extra register automatically accumulates plus or minus totals taken on the balancing register, so that a final total is available whenever required.

This faculty is especially useful in applications where numerous sub-totals are taken before a final total is required. In wages, for example, the operator can first enter and total basic earnings, bonus, overtime, etc., then the various deductions and, by pressing the accumulator register key and total key together, finally show the net wage. Similarly, individual invoices can be verified while a batch total is accumulated to give the figure for a day's or a week's sales.

The machine, which is electrically-



Automatic totalling

operated, has a simplified (12-key) keyboard. Minus figures are printed in red for easy identification. Totaling capacity in both registers is one penny short of £100 million. The streamlined casing is finished in light grey.

Bulmer's (Calculators) Ltd., Empire House, St. Martin's-le-Grand, London E.C.2

Phone amplifier saves executive time

How much time does a busy executive waste each day 'holding on' to the telephone? None at all, if he uses an amplifier, which leaves him free to write, search files, or move around the room while making or waiting for a call.

Latest in the field is the *Tele-Amp*,



Powered by dry battery

a small self-contained unit which runs for about a year on one 6v. dry battery. The unit, housed in a walnut veneer cabinet, measures 7in. square by 8in. high, and weighs 4½lb. It need not be connected to the telephone in any way, so can be moved from room to room if necessary.

Volume is controlled by a knob on the instrument, and can be adjusted to enable other people in the room to hear and contribute to a conversation. The tiresome business of passing a telephone handset from one person to another, or repeating the

gist of a conversation is thereby avoided. If desired, the entire conversation can be recorded on a tape machine without any extra attachment.

Operation is extremely simple. After picking up the handset in the ordinary way when making or taking a call, the user places it on the *Tele-Amp*. As speech begins he regulates the volume according to requirements. When the handset is replaced, the amplifier automatically switches itself off.

Engineering Design Contracts (Ayles) Ltd., 19 Rickfords Hill, Aylesbury, Bucks.

Dyeline photocopier has automatic separation

The operator's work is reduced to a minimum with the new *Copycat A.S.14* dyeline photocopier. This machine has a mechanism which automatically separates original and copy. Therefore the operator can sit comfortably at the machine, merely feeding in material.

Designed for systems work, the machine is capable of producing copies at speeds of up to eight per minute, the makers claim. Its new cooling system ensures that no overheating takes place, and the electronically-controlled motor has a very wide range of speeds. The 14in. feed is large enough to accommodate any sheet likely to be used in an office, and documents can be of any length.

Operation is on a continuous basis. A few moments after the operator has fed in the original and copy paper, the two are automatically separated by a suction device. The



Designed for systems work

TAPE IT

The Stenorette is produced by the world's largest manufacturers of tape recording instruments. Designed to meet the pace of modern business, it has all the features anyone could want in a dictating machine at a fraction of the cost.

FROM HERE

The Stenorette takes 25 minutes dictation for each spool of tape. It has instantaneous play-back, automatic erase and back-space facilities, will record conferences, memos or incoming telephone calls and provide clear, balanced reproduction for transcription.



Average cost
52 gns
(including the
basic accessories)

GRUNDIG *Stenorette* **DICTATING MACHINE**

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(Electronics Division, Gas Purification & Chemical Company Limited)

GS 86b

JULY, 1958

original goes back to the operator while the copy is guided by the machine through the processor. Finally a current of warm air dries the copies and passes them to the receiving tray where they are automatically stacked.

Copycat Ltd., 40 Victoria Street,
London S.W.1

Small duplicator does 7-colour work

Although small in size and low in price, the *Bambi* rotary spirit duplicator can make copies up to foolscap



Makes foolscap copies

size. Quality of reproduction is equal to that of larger machines, the manufacturers claim. Like other duplicators in this class, the *Bambi* can reproduce up to seven colours at a single run.

A feature not often found on small hand-operated machines is the convenient spirit feed device. The fluid is supplied in a polythene cartridge which is clipped direct on to the machine, thus requiring no pouring. Fordigraph Ltd., Ofrex House, Stephen Street, London W.1

Hi-fi recorder for executive note-taking

The miniature tape recorder is fast replacing a pocket notebook for busy executives. Latest of these machines is the British-made transistorized *Fi-Cord*, which is little larger than a camera, weighs only 4½lb., and records on polyester tape.

The *Fi-Cord* has two features which

make it unique among machines of its class. First, because of its two tape speeds it is capable of making high-fidelity recordings of music as well as of speech. Second, speech may be transcribed direct from the *Fi-Cord* without re-recording. It is, nevertheless, less costly than more limited machines.

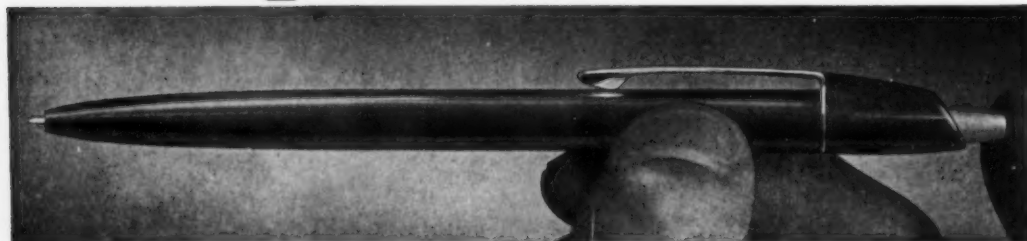
Four small batteries with a work-



Weights only 4½lb

NEW BALL PEN FOR COMMERCE AND INDUSTRY

Starts fast, never clogs, writes non-stop!
it's the **Epic** with exclusive silvered tip



Pens: 27/11½d. (inc. P.T.) per dozen. Refills: 18/10½d. (inc. P.T.) per dozen. Further quantity discounts.
Sold in packs of 12 of any one ink-colour. Minimum trial order: 1 pack.

Why do conventional ball pens sometimes start slowly and skip letters and words? Because the tip corrodes, causing the ink to clog. But the new EPIC has a unique silvered tip which cannot corrode. So with EPIC you get *instant* smooth ink flow . . . and *continuous* smooth writing!

For supplies write to: EPIC BALL PENS, INGERSOLL HOUSE, DEPT. 36, KINGSWAY, LONDON, W.C.2

The most efficient low-priced ball pen

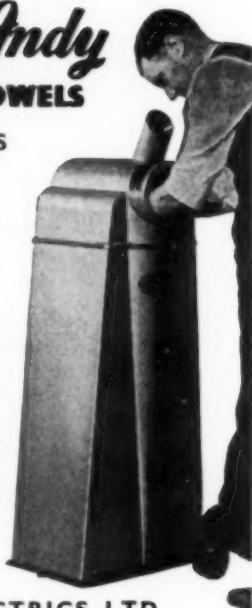
Non-fade ink withstands Ultra-Violet fading tests better than all other ball pens • Quick-drying ink (blue, red, green or black) — no smear or smudge • Simple 2-button retraction mechanism — no cap to remove or lose • Ink colour identified by matching retractor button • Each refill individually wrapped and sealed to reach you factory-perfect.

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OF HYGIENE IN HAND DRYING—
AND THE MOST ECONOMICAL

Handy-Andy WARM AIR TOWELS

DRY HANDS, FACES
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swiftly, hygienically,
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at one quarter the cost of paper towels, at less than one third the cost of laundering, without the fuss and expense of refillings and replacements. Handy-Andy dries 75 pairs of hands for one unit of electricity and is the most hygienic and economical means of complying with section 42 of the Factory Act. What you save will pay for your Handy Andys in less than a year.



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JULY, 1958



Destroy
old documents
—rapidly
—safely
—economically

Here's the way to make waste-paper pay! First—install the wonderful new Typhoon Document Shredder. Next—feed it with the old letters, the files, the confidential documents you wish to dispose of. And then watch it go to work. In seconds the amazing Typhoon not only shreds this waste-paper into unreadable strips but also converts it into first-class packing material. Money-saving, completely confidential, speedy and safe, the Typhoon Document Shredder copes with no less than 70lbs of waste-paper per hour. What's more, it can't be damaged by paper-clips, pins or staples. Neat, compact, and easily transportable, the Typhoon Document Shredder costs £150—plus £15 for the smart, lightweight tubular trolley. It's the best investment your Company can make because it saves money every time you use it. See the Typhoon today.

TYPHOON DOCUMENT SHREDDER

For further details contact :

HALSBY & COMPANY LIMITED

Dept. B.D., 52 Dean Street, Shaftesbury Avenue,
London W.1 Gerrard 4163

ing life between charges of about 3 to 3½ hours for speech, and about half as long for hi-fi, power the machine. They can be removed in a moment and re-charged—the charger is a small unit which plugs into A.C. mains from 110 to 240 volts.

Recording is done on twin tracks, with a total of 70 minutes per reel for speech, 18 minutes for music. The miniature microphone, which can be carried in the hand or clipped to a pocket, is equipped with a stop-start switch. Frequency range for hi-fi recording is 50-12,000 cycles per second; and recordings can be made through the microphone or direct from radio or gramophone.

Speech recorded at the slower speed comes through with perfect clarity. For transcription a stethophone or single earpiece is available.

Other features are extra-fast rewind—120 seconds; automatic cut-off of the speaker when the machine's

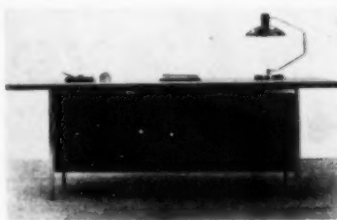
lid is closed; and automatic erasure.

The machine is finished in two-tone grey and has a carrying strap with a microphone pocket on it.

Fi-Cord Ltd., 40a Dover Street, London W.1

Contemporary furniture in walnut and teak

The desk shown here has a chromed-steel frame, ebonized pedestals and knee-hole panel, and a solid teak top. Its generous overhang per-



Good for conferences

mits seating comfort around it when it is used for conferences. It may be equipped with six standard-sized drawers, or one large file drawer with lock for confidential papers and four regular drawers. The top measures 80in. by 40in.

Knoll International Britain (Furniture and Textiles) Ltd., 6a Bedford Square, London W.C.1

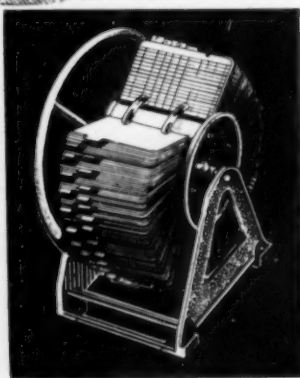
Hecto carbon has long shelf life

Hectographic copies as sharp as typed originals and as black as normal typing is the claim which Autex make for their new No. 1 transfer carbon.

This carbon gives a sharp definition, does not rub off, and has a long shelf life without oxidizing. It comes in any size and is suitable for use with pre-printed systems.

Autex Limited, 166-168 Piccadilly, London W.1

a reference and recording system at your elbow!



**CARDWHEEL
RECORD CONTROL**

Up to 5,000 cards on one wheel.

Located in seconds.

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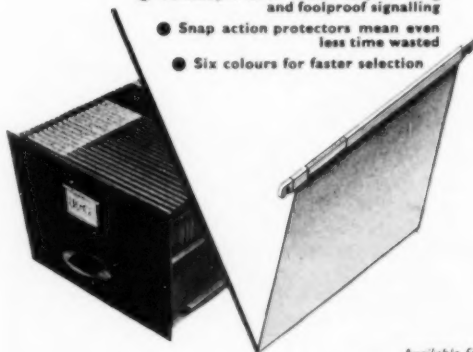


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SURPASS HOUSE, 26 HARRISON ST., LONDON W.C.1

Are you Bandy-minded?



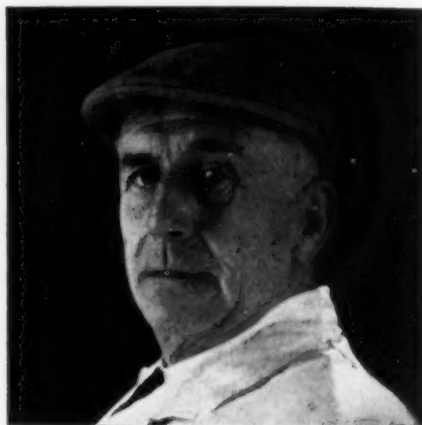
In almost every industry RUBBER BANDS can be used
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Tel. WIMBOROUGH 5111

THIS MAN

... is worth £60,000

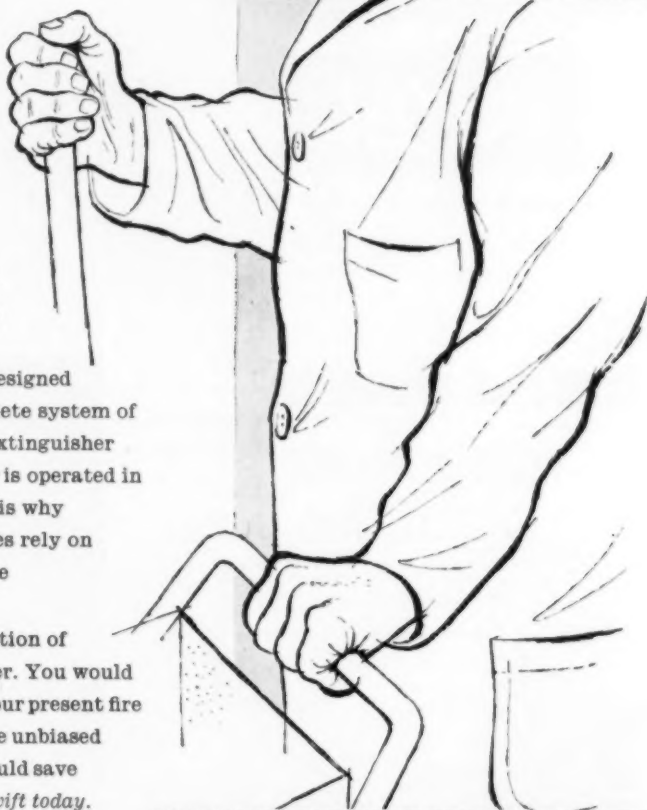


His employers will tell you that Bob West is worth every penny of that £60,000. Why? Because, single handed he put out a fire that, if allowed to spread, could have destroyed the whole plant.

Bob discovered the fire ... extinguished it instantaneously ... and was back at his job in 5 minutes. Modestly, he gives most of the credit to Nu-Swift — and Bob is right.

Every Nu-Swift extinguisher is designed to fulfil a specific function in a complete system of fire protection. There is a Nu-Swift extinguisher for every risk and every extinguisher is operated in the upright commonsense way. That is why industry and commerce in 70 countries rely on the easy-to-handle, certain-to-operate Nu-Swift extinguishers.

Delay or inefficiency in the operation of your extinguishers could spell disaster. You would be wise to request Nu-Swift to check your present fire fighting equipment. The report will be unbiased ... it won't cost you a penny ... and could save you a fortune. *Get in touch with Nu-Swift today.*



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Name

Address

For the attention of Mr.

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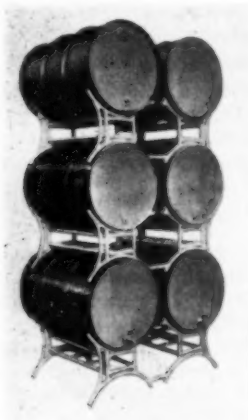
IN THE NORTH to Nu-Swift Ltd. (Dept. N42),

(B7) Elland, Yorkshire. Elland 2852

WORKSHOP

Drums stacked five high

Full drums can safely be stacked in pairs up to five high, using special cradles. Contents of each drum can be drawn off, using the end bung, without disturbing the others.



No danger of slipping

Cradles are designed for use with fork trucks.

They are of tubular steel and can be carried easily by one man. There are no crevices for moisture to lodge and rust. Danger of slipping, as when stacking in pyramid fashion, is eliminated.

*Powell and Co. Ltd.,
Burry Port, Carm., South Wales*

Factory mat is safe, comfortable

Soft, comfortable and safe, a factory mat eliminates most of the hazards and discomforts associated



Operator fatigue reduced

JULY, 1958

with normal treadboards. It measures 4ft. by 2ft. by $\frac{3}{8}$ in.

Ordinary boards are used on factory floors to reduce fatigue of a machine operator. But they become oil-sodden and slippery, while the battens splinter and cause falls.

The new mat is of rubber-cork composition. It resists oil and water, is rot proof, and gives a good grip. Delicate components dropped on it are not damaged. Various colours are available. Any length can be made up by using special connectors. Likely uses are at machines, control panels, and on dangerous ramps and catwalks.

*James Walker Ltd.,
Lion Works, Woking, Surrey*

Name plate needs no screws

Nails and screws are not required to fix a new range of nameplates. It is necessary only to remove a protective backing and press the plate home.

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*John Goshon and Co. Ltd.,
Packaging Tape Centre, Vauxhall,
S.E.11*

Fork-trucks have better stability

Low centre of gravity, giving increased stability, is a feature of a re-designed range of fork-lift trucks. Models are available with power units operating from batteries, petrol, diesel, and gas, with capacities from one to two tons.

In order to ease the spares supply, most of the parts are interchangeable right through the range. Previous models had a three-wheel lay-out; this was abandoned in the new *Universal* range in favour of four wheels, to give a very low centre of gravity, less overall weight, long wheel base, and balanced wheel loadings, so that



For smoother traction

traction is smooth with or without load. Less ballast is required. Even with four wheels the turning circle is small.

Other points are: mast—see-through visibility improved; maintenance—all points easily accessible; driver comfort—clear floor, plenty of legroom, and access from either side.

*Coventry Climax Engines Ltd.,
Coventry*

Sack-tipping made quick and clean

Dust, mess and waste that result from normal tipping of flour, pigment, carbon black, and so on, are eliminated by a special unit.

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Self-contained unit

hoppers, conveyors, silos. Pushing a sack through the door automatically starts the fan. The filter is self-clearing.

Use of the unit keeps the air clean and healthy; other machinery does not become fouled; and material caught in the unit can be used in production.

*Dallow Lambert and Co.,
Thurmaston, Leicester*

Cheaper, lighter steel buildings

Prefabricated steel buildings, designed according to the 'plastic theory,' are lighter and therefore cheaper than conventional steel structures.

The essence of the plastic theory is to free the frame from the burden of



Various designs possible

its own weight, so that it can perform better its proper function of sustaining the fabric.

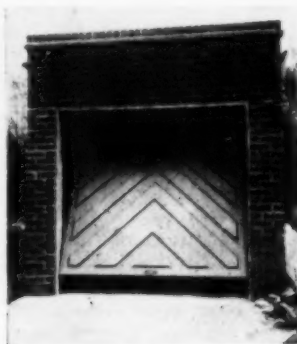
These new buildings are standardized, yet various designs are possible, using different combinations. Prices are low; they can beat any comparable steel building in practically any market. On the home market they will compete with reinforced concrete, even including the cost of fire-proofing.

*Sanders and Foster Ltd.,
Chamberlain Group,
Staffa Works, Leyton, London E.10*

Plastic door is light and durable

Its weight of 55lb., compared with the 200lb. of a wooden door of comparable size, makes a plastics garage door easy to install and manoeuvre.

It cannot rust. No painting is required—doors are tinted to the desired colour during manufacture. The door is of the up-and-over type and



No rust, no painting

is supplied complete with mounting gear. Its low weight means that simpler guide tracks are required. Counter-weights are smaller than usual. Hard rubber guide rollers are used throughout.

*Coburn Engineers Ltd.,
Peasmarsh, Guildford, Surrey*

Washing unit for lorry crews

Warm water for washing is supplied by a new unit which fixes to the

chassis of any large vehicle. It will be useful for any crew who handle foodstuffs or who become contaminated with dirty and harmful loads.

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*Cove Products Ltd.,
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Transistor amplifier is small, economical

Use of transistors instead of valves throughout makes a new, large-output sound amplifier small, light, and economical in power consumption.

Size is only 8in. by 3½in. by 6in., and weight is only 5½lb. It is intended to operate from a 12-volt battery where there is no mains supply. Power consumption is only one-fifth of that of a normal amplifier of similar output power—10 watts.

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*Pye Telecommunications Ltd.,
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Primarily designed for frying chip potatoes, this fryer will satisfactorily fry meat and fish.

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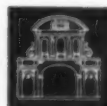
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Executive Inventory

Starts on page 59

found that this approach pays dividends. The advantages claimed for it are:

►The appraisals are usually made by a committee. Sometimes independent opinions are sought. The result is greater objectivity than could be expected from a candidate's immediate superiors. 'Political' and 'personal' factors—which might unjustifiably hold a man back or push him forward—are more easily discounted.

►Individual assessments are considered in relation to each other. Resources—actual and potential—are weighed against a forecast of requirements. As in other types of inventory, the deficiencies stand out immediately.

►The very act of making these assessments tends to bring other personnel policies—recruiting, training and executive development—into line with planned requirements.

Of course, the existence of a formal

appraisal system does not guarantee that the job is being done properly, any more than the absence of a formal system guarantees that it is being done badly. But taking all things into consideration there are unassailable arguments in favour of making *conscious* efforts in this direction.

Often the incentive to do so occurs when a business enters a period of reorganization and has to examine all of its resources more critically than usual. This is what happened in the case of Moore Eady and Murcott Goode Ltd., a Leicester firm of hosiery and knitwear manufacturers.

Moore Eady are an old-established family business with about 1,000 employees. When Michael Moore (a great-grandson of the founder) became chairman and managing director in 1954, he immediately recognized the potential dangers of letting the company 'drift' from the post-war honeymoon into a period of stiff competition. The remedy, he decided, was a 'good shake up.'

Then, as now, there were two

divisions of equal status: hosiery and garments. During its growth, the garments division had spread into five scattered factories. Because of market changes, some of its operations were less profitable than they were before the war. There was also the problem that lines of authority—as might be expected under these difficult working conditions—had become tangled.

Consequently it was the garments division which received the full weight of the reorganization programme. This has involved:

Closing down the less profitable operations so that all production and service departments can be concentrated in the biggest factory at Derby.

Broadening the marketing policy to permit the mass-production of some medium- and low-priced lines.

Overhauling the accounting and other administrative systems, and mechanizing where possible.

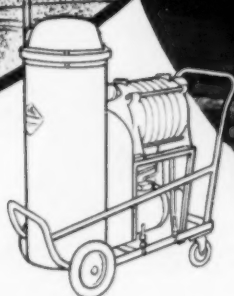
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ing (hitherto the responsibilities of individual departmental heads).

Almost as soon as they began to reorganize, the company realized that the garments division would eventually need about 12 new executives (of all grades) to replace men who were dropping out because of the move to Derby, and to look after the centralized functions which were being created.

Their most urgent need was for six senior executives, preferably but not essentially between the ages of 30 and 45. Moore Eady decided to find these, if possible, inside their organization.

By then they had engaged a firm of management consultants, Mead Carney and Co. Ltd., to help them to carry out some of the more technical aspects of the reorganization. This gave them an opportunity to develop a systematic method of appraising their executive 'potential.'

The first step was to make sure that they really knew what they wanted; it was no use trying to fit

good men into a faulty structure. With the help of the consultants, the management—

—drew up a new organizational chart;

—prepared a detailed specification of each executive job in it;

—devised a system of salary administration (based on the job specifications) to get rid of the anomalies which had built up over the years.

For the selection of executives it was decided to superimpose psychological testing on standard methods of assessment.

The company put forward a short list of eight candidates. Each of these was interviewed by the consultants. In Mr. Moore's opinion, it was a tremendous advantage to get fresh, unbiased assessments of men whose capabilities in *established jobs* were already familiar to the management.

Then the candidates were tested by an industrial psychologist, who spent one week at the company's Leicester

H.Q. By means of intelligence tests, questionnaires and long interviews, he assessed them on four grounds:

- 1—Mental capacity
- 2—Actual mental ability
- 3—Powers of concentration
- 4—Reactions under strain

Finally the consultants' and the psychologist's reports were discussed with the management, and six of the eight men were placed.

The management had decided that it was impossible to fill the other vacancies from within the company, so these were advertised. After a preliminary interview and screening by Mr. Moore, the short-list candidates were put through exactly the same procedure as the 'inside' men.

In Britain, the psychological testing of senior people is still something of a rarity. Leicester businessmen have as much healthy scepticism as anyone—perhaps more. Nevertheless, Moore Eady are now convinced that in their case the tests served a very useful purpose.

One reason is that no one expected



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too much of them. It was not assumed that the psychologist's comments could or should over-ride the commonsense judgments which are normally made on such occasions. In one sense, the tests had a negative value. The psychologist was not asked to predict that Mr. X would make a success of a specific job: he was asked to report weaknesses of character or temperament which might get in the way of otherwise suitable qualifications.

Generally his comments confirmed the opinions already formed by Mr. Moore and the consultants. In no case was there a head-on clash over the suitability of a candidate.

But the usefulness of the tests was not confined to the selection period. From the psychologist's written and verbal reports, Mr. Moore has learned a great deal about the chosen men. This knowledge, he believes, will help him to provide conditions under which individual executives can develop their capabilities to the full.

The reaction of candidates to the idea of being tested in this way? At first, the inside men were perturbed and annoyed. They feared—understandably—that the opinions of a 'crank' might wreck their promotion chances. This antipathy persisted until the final two-hour interview with the psychologist, when he had an opportunity to clear up all misunderstandings.

There might have been more opposition and resentment, but for the fact that the inside men warmly welcomed all other features of the reorganization, especially the clarification of chains of command and the removal of salary anomalies.

The outside candidates were more resigned to the idea of psychological tests. Only one applicant refused on principle to 'submit' to them; and it is unlikely that he would have been accepted in any case.

The company's physical reorganization is now approaching its final stage. The management team is complete. Because both operations have received equal attention, this 100-year-old company looks forward to a bright future.

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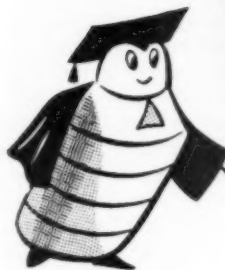
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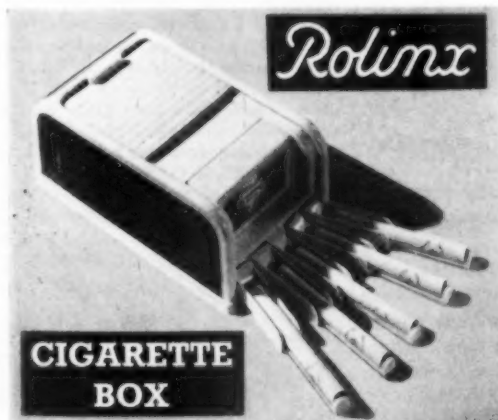
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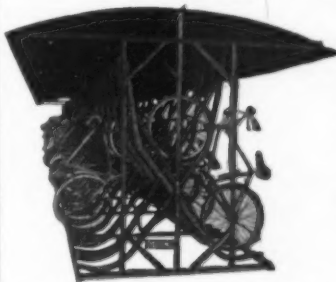
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Two-day Course Briefs Top Men on Work Study

Starts on page 64

office tasks. An investigation, they are told, begins with a survey of what can be usefully studied. After that the pattern is to—

—record how the work is done;
—analyse the record made to see where the present method is inefficient;

—devise a new method to do the work; and

—install the new method.

The students see how the specialist sets about getting his facts. It is demonstrated, for example, that making a record of work can be done simply by using cine cameras. Films provide a permanent record that can be continually checked; and by adapting cameras so that they work at the speed of, say, one frame per second (memomotion) instead of the normal 16 frames per second the specialist gets a picture that compresses a lot of activity into a short time. A number of such films are shown to the course.

The lecturers are not merely content with demonstrating what they do; they pinpoint three possible results of work study:

- 1—It can increase output while the men and machines employed remain the same.
- 2—It can cut costs by suggesting ways of doing the same work but with fewer workers.
- 3—It can do 1 and 2 together.

When a wad of lecture notes have been clipped together and pushed into a fat briefcase and the directors ride off at the end of the second day, what are the results of the course?

Like the dope pedlar of the American jingle who gives samples to the children

Because he knows too well
That today's young innocent faces
Are tomorrow's clientele

the Anne Shaw Organization, in a more innocuous field, know that top management appreciation of work study may well bring foremen, supervisors, and junior management to other courses on work study.

They are one of the few consultancy firms who train people to become qualified work study specialists. This is achieved by a nine-week course, covering all aspects of method study and its background. On the practical side, the first few weeks are spent learning how to use method study techniques; then, with the help of a tutor-consultant, students work on projects submitted by their companies.

The value of a short appreciation course for senior executives is considerable. They are better equipped to direct investigations by specialists into the most productive channels, and to appreciate what problems can be solved by their work study department.

END

Are Your Costs and Prices Realistic?

Does your thinking take account of changing values? So many things have gone up in price—labour, machinery, supplies, professional services and finished goods. This table, based on the retail price index, gives you a rough set of conversion factors for bringing your values up-to-date. For example, if you spent £100 on a machine in 1931, for which year the conversion factor is 2.85, then you could hardly be surprised if a similar machine now costs £285. It may actually cost more or less, but you would expect values generally to be around 2.8 times the 1931 level. This table will be brought up-to-date every quarter, but published monthly for handy reference.

Year	Con- version Factor	Year	Con- version Factor
1913	4.19	1935	2.91
1919	1.93	1936	2.85
1920	1.69	1937	2.71
1921	1.86	1938	2.68
1922	2.29	1939	2.60
1923	2.39	1946	1.74
1924	2.39	1947	1.65
1925	2.39	1948	1.53
1926	2.44	1949	1.49
1927	2.50	1950	1.45
1928	2.53	1951	1.32
1929	2.55	1952	1.21
1930	2.65	1953	1.18
1931	2.85	1954	1.15
1932	2.91	1955	1.11
1933	2.98	1956	1.05
1934	2.98	1957	1.02

Long-Range Planning

Starts on page 64

documents, it gives such things as the organizational chart for the period, a plan for short-term capital expenditure, and a financial plan showing the anticipated movements of individual accounts and inventories. All of these have to conform, of course, with the five-year projection.

Checks are applied by producing:

1—a weekly operational result statement the main feature of which is a departmentalized profit and loss account. Each departmental head gets a profit and loss statement for his own department, showing in detail its financial performance during the week concerned.

2—a weekly financial statement.

Both of these are compared, item by item, with the relevant parts of the short- and long-range plans, and immediate action is taken if the actual performance is not 100 per cent of the estimate.

The basis of a "Pathfinder" plan is of course the availability of money. But the companies also place great emphasis on applying the results of research in such fields as consumer taste, product design, sales techniques, the layout of retail shops, and management methods.

Executive Development

Probably the most important aspect of this work is executive development, which is done more by systematic job rotation than by formal training schemes. They take the view that plans—financial or otherwise—are of no value at all without the right people to implement them. Therefore they are continuously considering the executive manpower requirements of their companies.

Full records are kept of (a) the executive talent—actual and potential—which is available; and (b) the anticipated requirements during the five-year period. It is the responsibility of individual managements to see that these match.

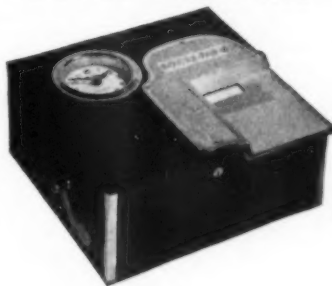
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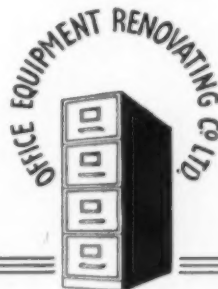
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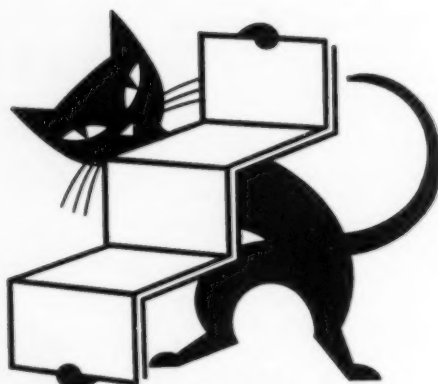
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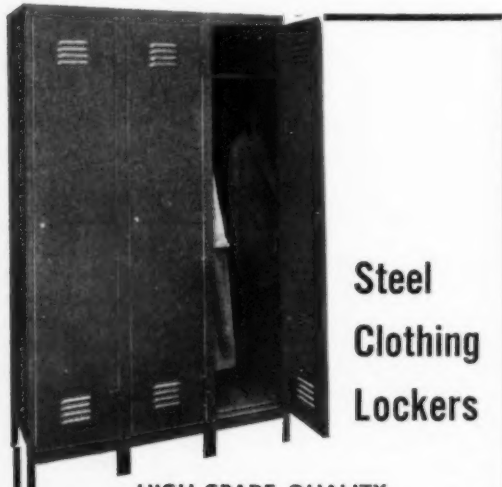
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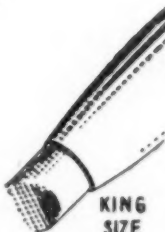
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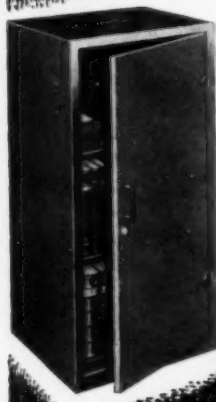
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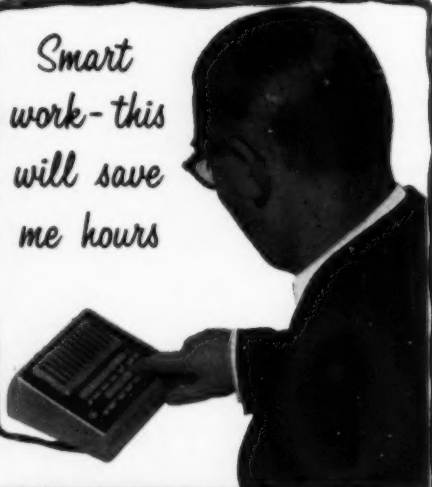
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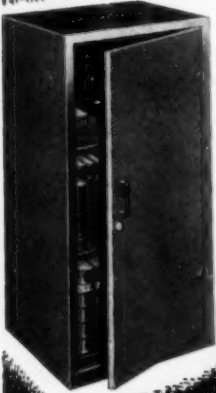
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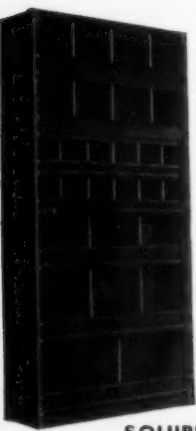


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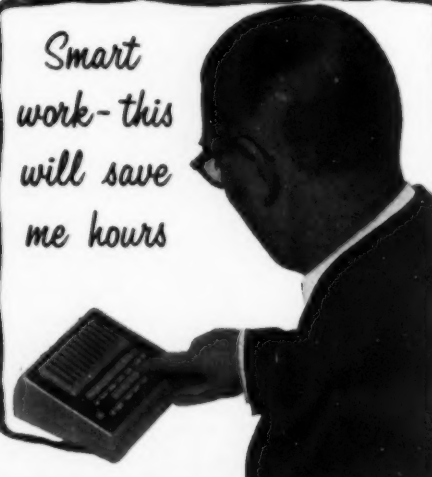
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